

Updated and Revised



Grade

4

SPECTRUM **Math**

***Excellent Tool for
Standardized Test Preparation!***

- **Multiplying and dividing**
- **Fractions**
- **Metric and customary measurement**
- **Geometry**
- **Preparing for algebra**
- **Graphs and probability**
- **Answer key**



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8720 Orion Place
Columbus, Ohio 43240-2111

Spectrum Math—grade 4

ISBN 978-0-76823-804-4

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**Check What You Know**Adding and Subtracting 1 and 2 DigitsAdd or subtract.

$$\begin{array}{r} \text{1.} \quad \text{a} \\ 35 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} \text{b} \\ 25 \\ + 13 \\ \hline \end{array}$$

$$\begin{array}{r} \text{c} \\ 75 \\ + 24 \\ \hline \end{array}$$

$$\begin{array}{r} \text{d} \\ 13 \\ + 12 \\ \hline \end{array}$$

$$\begin{array}{r} \text{e} \\ 42 \\ + 7 \\ \hline \end{array}$$

$$\begin{array}{r} \text{f} \\ 54 \\ + 33 \\ \hline \end{array}$$

$$\begin{array}{r} \text{2.} \\ 43 \\ + 24 \\ \hline \end{array}$$

$$\begin{array}{r} 54 \\ + 5 \\ \hline \end{array}$$

$$\begin{array}{r} 63 \\ + 31 \\ \hline \end{array}$$

$$\begin{array}{r} 82 \\ + 16 \\ \hline \end{array}$$

$$\begin{array}{r} 32 \\ + 23 \\ \hline \end{array}$$

$$\begin{array}{r} 74 \\ + 15 \\ \hline \end{array}$$

$$\begin{array}{r} \text{3.} \\ 50 \\ + 33 \\ \hline \end{array}$$

$$\begin{array}{r} 95 \\ + 2 \\ \hline \end{array}$$

$$\begin{array}{r} 32 \\ + 25 \\ \hline \end{array}$$

$$\begin{array}{r} 73 \\ + 25 \\ \hline \end{array}$$

$$\begin{array}{r} 56 \\ + 13 \\ \hline \end{array}$$

$$\begin{array}{r} 47 \\ + 32 \\ \hline \end{array}$$

$$\begin{array}{r} \text{4.} \\ 12 \\ + 7 \\ \hline \end{array}$$

$$\begin{array}{r} 36 \\ + 12 \\ \hline \end{array}$$

$$\begin{array}{r} 55 \\ + 23 \\ \hline \end{array}$$

$$\begin{array}{r} 70 \\ + 19 \\ \hline \end{array}$$

$$\begin{array}{r} 92 \\ + 4 \\ \hline \end{array}$$

$$\begin{array}{r} 54 \\ + 23 \\ \hline \end{array}$$

$$\begin{array}{r} \text{5.} \\ 45 \\ - 4 \\ \hline \end{array}$$

$$\begin{array}{r} 75 \\ - 23 \\ \hline \end{array}$$

$$\begin{array}{r} 66 \\ - 14 \\ \hline \end{array}$$

$$\begin{array}{r} 95 \\ - 31 \\ \hline \end{array}$$

$$\begin{array}{r} 84 \\ - 22 \\ \hline \end{array}$$

$$\begin{array}{r} 25 \\ - 12 \\ \hline \end{array}$$

$$\begin{array}{r} \text{6.} \\ 49 \\ - 27 \\ \hline \end{array}$$

$$\begin{array}{r} 57 \\ - 46 \\ \hline \end{array}$$

$$\begin{array}{r} 39 \\ - 18 \\ \hline \end{array}$$

$$\begin{array}{r} 79 \\ - 27 \\ \hline \end{array}$$

$$\begin{array}{r} 27 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 88 \\ - 56 \\ \hline \end{array}$$

$$\begin{array}{r} \text{7.} \\ 65 \\ - 55 \\ \hline \end{array}$$

$$\begin{array}{r} 78 \\ - 33 \\ \hline \end{array}$$

$$\begin{array}{r} 54 \\ - 42 \\ \hline \end{array}$$

$$\begin{array}{r} 97 \\ - 26 \\ \hline \end{array}$$

$$\begin{array}{r} 29 \\ - 15 \\ \hline \end{array}$$

$$\begin{array}{r} 59 \\ - 48 \\ \hline \end{array}$$

$$\begin{array}{r} \text{8.} \\ 54 \\ - 23 \\ \hline \end{array}$$

$$\begin{array}{r} 29 \\ - 18 \\ \hline \end{array}$$

$$\begin{array}{r} 47 \\ - 37 \\ \hline \end{array}$$

$$\begin{array}{r} 99 \\ - 66 \\ \hline \end{array}$$

$$\begin{array}{r} 89 \\ - 27 \\ \hline \end{array}$$

$$\begin{array}{r} 36 \\ - 15 \\ \hline \end{array}$$



Check What You Know

SHOW YOUR WORK

Adding and Subtracting 1 and 2 Digits

Solve each problem.

- 9.** Kai has 10 postcards from her cousin Alicia. She put them into her collection box with her other 46 postcards. How many postcards does Kai have in her box?

There are _____ postcards in her box.

- 10.** Mr. Dimas has 15 new students in his fourth-grade class. He already has 21 students in the class. How many students are in Mr. Dimas's class?

There are _____ students in his class.

- 11.** There are 35 pages in Kendrick's science book. Last night, Kendrick read 14 pages. How many more pages does Kendrick have left to read?

There are _____ pages left to read.

- 12.** Kono's father gave him 75 apples so he could pass them out to his friends. If Kono gave 43 away, how many apples does he have left?

There are _____ apples left.

- 13.** Monica and Tania want to throw a surprise party for Rosa. They plan to send out 45 invitations. If Tania writes 24, how many invitations does Monica need to write?

Monica needs to write _____ invitations.

- 14.** Seki's soccer team is in the State Cup Tournament. There were 23 goals made in the entire tournament. Seki's team made 12 of them. How many goals were made by the other teams?

The other teams scored _____ goals.

Lesson 1.1 Adding 1- and 2-Digit Numbers

| | | | |
|--------------------------------------|-----|---------------|---------------|
| | | Add the ones. | Add the tens. |
| addend \longrightarrow 6 60 | 23 | 23 | 23 |
| addend \longrightarrow +3 +30 | +16 | +16 | +16 |
| sum \longrightarrow 9 90 | 9 | 9 | 39 |

If $6 + 3 = 9$, then $60 + 30 = 90$.

Add.

| | | | | | |
|--|---|---|---|---|---|
| a | b | c | d | e | f |
| 1. $\begin{array}{r} 11 \\ + 8 \\ \hline \end{array}$ | $\begin{array}{r} 10 \\ + 30 \\ \hline \end{array}$ | $\begin{array}{r} 25 \\ + 14 \\ \hline \end{array}$ | $\begin{array}{r} 81 \\ + 18 \\ \hline \end{array}$ | $\begin{array}{r} 52 \\ + 17 \\ \hline \end{array}$ | $\begin{array}{r} 74 \\ + 23 \\ \hline \end{array}$ |
| 2. $\begin{array}{r} 10 \\ + 80 \\ \hline \end{array}$ | $\begin{array}{r} 7 \\ + 2 \\ \hline \end{array}$ | $\begin{array}{r} 15 \\ + 4 \\ \hline \end{array}$ | $\begin{array}{r} 7 \\ + 92 \\ \hline \end{array}$ | $\begin{array}{r} 71 \\ + 6 \\ \hline \end{array}$ | $\begin{array}{r} 70 \\ + 10 \\ \hline \end{array}$ |
| 3. $\begin{array}{r} 7 \\ + 22 \\ \hline \end{array}$ | $\begin{array}{r} 20 \\ + 30 \\ \hline \end{array}$ | $\begin{array}{r} 92 \\ + 7 \\ \hline \end{array}$ | $\begin{array}{r} 83 \\ + 16 \\ \hline \end{array}$ | $\begin{array}{r} 46 \\ + 23 \\ \hline \end{array}$ | $\begin{array}{r} 70 \\ + 20 \\ \hline \end{array}$ |
| 4. $\begin{array}{r} 2 \\ + 41 \\ \hline \end{array}$ | $\begin{array}{r} 30 \\ + 30 \\ \hline \end{array}$ | $\begin{array}{r} 51 \\ + 48 \\ \hline \end{array}$ | $\begin{array}{r} 34 \\ + 24 \\ \hline \end{array}$ | $\begin{array}{r} 7 \\ + 22 \\ \hline \end{array}$ | $\begin{array}{r} 20 \\ + 50 \\ \hline \end{array}$ |
| 5. $\begin{array}{r} 30 \\ + 15 \\ \hline \end{array}$ | $\begin{array}{r} 21 \\ + 21 \\ \hline \end{array}$ | $\begin{array}{r} 7 \\ + 42 \\ \hline \end{array}$ | $\begin{array}{r} 40 \\ + 40 \\ \hline \end{array}$ | $\begin{array}{r} 56 \\ + 41 \\ \hline \end{array}$ | $\begin{array}{r} 62 \\ + 17 \\ \hline \end{array}$ |
| 6. $\begin{array}{r} 34 \\ + 34 \\ \hline \end{array}$ | $\begin{array}{r} 60 \\ + 13 \\ \hline \end{array}$ | $\begin{array}{r} 9 \\ + 30 \\ \hline \end{array}$ | $\begin{array}{r} 4 \\ + 3 \\ \hline \end{array}$ | $\begin{array}{r} 13 \\ + 6 \\ \hline \end{array}$ | $\begin{array}{r} 44 \\ + 33 \\ \hline \end{array}$ |
| 7. $\begin{array}{r} 3 \\ + 32 \\ \hline \end{array}$ | $\begin{array}{r} 5 \\ + 10 \\ \hline \end{array}$ | $\begin{array}{r} 63 \\ + 24 \\ \hline \end{array}$ | $\begin{array}{r} 71 \\ + 20 \\ \hline \end{array}$ | $\begin{array}{r} 41 \\ + 8 \\ \hline \end{array}$ | $\begin{array}{r} 32 \\ + 30 \\ \hline \end{array}$ |

Lesson 1.2 Subtracting 1- and 2-Digit Numbers

| | | | |
|------------|---|----------|-----------|
| minuend | → | 9 | 90 |
| subtrahend | → | -3 | -30 |
| difference | → | <u>6</u> | <u>60</u> |

If $9 - 3 = 6$, then $90 - 30 = 60$.

| | Subtract the ones. | Subtract the tens. |
|--|--|---|
| $\begin{array}{r} 53 \\ -21 \\ \hline \end{array}$ | $\begin{array}{r} 53 \\ -21 \\ \hline 2 \end{array}$ | $\begin{array}{r} 53 \\ -21 \\ \hline 32 \end{array}$ |

Subtract.

| | a | b | c | d | e | f |
|-----------|--|--|--|--|--|--|
| 1. | $\begin{array}{r} 33 \\ -12 \\ \hline \end{array}$ | $\begin{array}{r} 43 \\ -20 \\ \hline \end{array}$ | $\begin{array}{r} 91 \\ -30 \\ \hline \end{array}$ | $\begin{array}{r} 8 \\ -3 \\ \hline \end{array}$ | $\begin{array}{r} 90 \\ -20 \\ \hline \end{array}$ | $\begin{array}{r} 72 \\ -11 \\ \hline \end{array}$ |
| 2. | $\begin{array}{r} 88 \\ -24 \\ \hline \end{array}$ | $\begin{array}{r} 59 \\ -38 \\ \hline \end{array}$ | $\begin{array}{r} 43 \\ -31 \\ \hline \end{array}$ | $\begin{array}{r} 50 \\ -40 \\ \hline \end{array}$ | $\begin{array}{r} 48 \\ -17 \\ \hline \end{array}$ | $\begin{array}{r} 72 \\ -62 \\ \hline \end{array}$ |
| 3. | $\begin{array}{r} 25 \\ -15 \\ \hline \end{array}$ | $\begin{array}{r} 94 \\ -4 \\ \hline \end{array}$ | $\begin{array}{r} 50 \\ -30 \\ \hline \end{array}$ | $\begin{array}{r} 35 \\ -3 \\ \hline \end{array}$ | $\begin{array}{r} 27 \\ -10 \\ \hline \end{array}$ | $\begin{array}{r} 13 \\ -12 \\ \hline \end{array}$ |
| 4. | $\begin{array}{r} 53 \\ -40 \\ \hline \end{array}$ | $\begin{array}{r} 14 \\ -3 \\ \hline \end{array}$ | $\begin{array}{r} 18 \\ -10 \\ \hline \end{array}$ | $\begin{array}{r} 55 \\ -42 \\ \hline \end{array}$ | $\begin{array}{r} 9 \\ -2 \\ \hline \end{array}$ | $\begin{array}{r} 10 \\ -8 \\ \hline \end{array}$ |
| 5. | $\begin{array}{r} 49 \\ -18 \\ \hline \end{array}$ | $\begin{array}{r} 74 \\ -3 \\ \hline \end{array}$ | $\begin{array}{r} 59 \\ -27 \\ \hline \end{array}$ | $\begin{array}{r} 68 \\ -7 \\ \hline \end{array}$ | $\begin{array}{r} 93 \\ -22 \\ \hline \end{array}$ | $\begin{array}{r} 38 \\ -37 \\ \hline \end{array}$ |
| 6. | $\begin{array}{r} 79 \\ -35 \\ \hline \end{array}$ | $\begin{array}{r} 21 \\ -11 \\ \hline \end{array}$ | $\begin{array}{r} 46 \\ -42 \\ \hline \end{array}$ | $\begin{array}{r} 78 \\ -64 \\ \hline \end{array}$ | $\begin{array}{r} 15 \\ -4 \\ \hline \end{array}$ | $\begin{array}{r} 87 \\ -35 \\ \hline \end{array}$ |
| 7. | $\begin{array}{r} 25 \\ -13 \\ \hline \end{array}$ | $\begin{array}{r} 71 \\ -20 \\ \hline \end{array}$ | $\begin{array}{r} 46 \\ -23 \\ \hline \end{array}$ | $\begin{array}{r} 56 \\ -41 \\ \hline \end{array}$ | $\begin{array}{r} 85 \\ -63 \\ \hline \end{array}$ | $\begin{array}{r} 99 \\ -77 \\ \hline \end{array}$ |

Lesson 1.3 Adding Three or More Numbers (single digit)

$$\begin{array}{r} 2 \\ 6 \\ +7 \\ \hline \end{array} \rightarrow \begin{array}{r} 8 \\ 7 \\ + \\ \hline 15 \end{array}$$

$$\begin{array}{r} 3 \\ 4 \\ 7 \\ +1 \\ \hline \end{array} \rightarrow \begin{array}{r} 7 \\ 7 \\ +1 \\ \hline \end{array} \rightarrow \begin{array}{r} 14 \\ 1 \\ + \\ \hline 15 \end{array}$$

Add.

| | a | b | c | d | e | f | g | h |
|----|--|--|--|--|--|--|--|--|
| 1. | $\begin{array}{r} 3 \\ 4 \\ +5 \\ \hline \end{array}$ | $\begin{array}{r} 2 \\ 6 \\ +3 \\ \hline \end{array}$ | $\begin{array}{r} 7 \\ 5 \\ +3 \\ \hline \end{array}$ | $\begin{array}{r} 6 \\ 3 \\ +7 \\ \hline \end{array}$ | $\begin{array}{r} 8 \\ 7 \\ +2 \\ \hline \end{array}$ | $\begin{array}{r} 9 \\ 8 \\ +1 \\ \hline \end{array}$ | $\begin{array}{r} 3 \\ 6 \\ +8 \\ \hline \end{array}$ | $\begin{array}{r} 1 \\ 7 \\ +6 \\ \hline \end{array}$ |
| 2. | $\begin{array}{r} 4 \\ 6 \\ +8 \\ \hline \end{array}$ | $\begin{array}{r} 3 \\ 5 \\ +2 \\ \hline \end{array}$ | $\begin{array}{r} 1 \\ 5 \\ +7 \\ \hline \end{array}$ | $\begin{array}{r} 8 \\ 5 \\ +3 \\ \hline \end{array}$ | $\begin{array}{r} 4 \\ 7 \\ +8 \\ \hline \end{array}$ | $\begin{array}{r} 3 \\ 8 \\ +9 \\ \hline \end{array}$ | $\begin{array}{r} 2 \\ 6 \\ +9 \\ \hline \end{array}$ | $\begin{array}{r} 3 \\ 3 \\ +7 \\ \hline \end{array}$ |
| 3. | $\begin{array}{r} 8 \\ 7 \\ +5 \\ \hline \end{array}$ | $\begin{array}{r} 8 \\ 3 \\ +5 \\ \hline \end{array}$ | $\begin{array}{r} 3 \\ 8 \\ +2 \\ \hline \end{array}$ | $\begin{array}{r} 2 \\ 8 \\ +6 \\ \hline \end{array}$ | $\begin{array}{r} 6 \\ 7 \\ +8 \\ \hline \end{array}$ | $\begin{array}{r} 3 \\ 6 \\ +9 \\ \hline \end{array}$ | $\begin{array}{r} 1 \\ 8 \\ +7 \\ \hline \end{array}$ | $\begin{array}{r} 5 \\ 7 \\ +9 \\ \hline \end{array}$ |
| 4. | $\begin{array}{r} 1 \\ 3 \\ 5 \\ +7 \\ \hline \end{array}$ | $\begin{array}{r} 2 \\ 6 \\ 7 \\ +4 \\ \hline \end{array}$ | $\begin{array}{r} 1 \\ 5 \\ 9 \\ +7 \\ \hline \end{array}$ | $\begin{array}{r} 3 \\ 5 \\ 4 \\ +6 \\ \hline \end{array}$ | $\begin{array}{r} 2 \\ 2 \\ 2 \\ +8 \\ \hline \end{array}$ | $\begin{array}{r} 1 \\ 7 \\ 8 \\ +9 \\ \hline \end{array}$ | $\begin{array}{r} 4 \\ 4 \\ 5 \\ +6 \\ \hline \end{array}$ | $\begin{array}{r} 3 \\ 4 \\ 6 \\ +8 \\ \hline \end{array}$ |
| 5. | $\begin{array}{r} 2 \\ 6 \\ 4 \\ +8 \\ \hline \end{array}$ | $\begin{array}{r} 2 \\ 2 \\ 8 \\ +7 \\ \hline \end{array}$ | $\begin{array}{r} 4 \\ 5 \\ 7 \\ +9 \\ \hline \end{array}$ | $\begin{array}{r} 3 \\ 3 \\ 4 \\ +4 \\ \hline \end{array}$ | $\begin{array}{r} 5 \\ 5 \\ 4 \\ +3 \\ \hline \end{array}$ | $\begin{array}{r} 6 \\ 3 \\ 7 \\ +1 \\ \hline \end{array}$ | $\begin{array}{r} 5 \\ 4 \\ 8 \\ +9 \\ \hline \end{array}$ | $\begin{array}{r} 1 \\ 7 \\ 1 \\ +9 \\ \hline \end{array}$ |
| 6. | $\begin{array}{r} 9 \\ 1 \\ 7 \\ +2 \\ \hline \end{array}$ | $\begin{array}{r} 3 \\ 4 \\ 7 \\ +8 \\ \hline \end{array}$ | $\begin{array}{r} 2 \\ 5 \\ 7 \\ +4 \\ \hline \end{array}$ | $\begin{array}{r} 5 \\ 3 \\ 6 \\ +5 \\ \hline \end{array}$ | $\begin{array}{r} 8 \\ 3 \\ 9 \\ +2 \\ \hline \end{array}$ | $\begin{array}{r} 4 \\ 6 \\ 8 \\ +3 \\ \hline \end{array}$ | $\begin{array}{r} 7 \\ 3 \\ 7 \\ +3 \\ \hline \end{array}$ | $\begin{array}{r} 2 \\ 1 \\ 8 \\ +5 \\ \hline \end{array}$ |

Lesson 1.4 Adding through 2 Digits (with renaming)

Add the ones.

Add the tens.

$$\begin{array}{r} 52 \\ +29 \\ \hline \end{array}$$

2 + 9 = 11 or 10 + 1

$$\begin{array}{r} 52 \\ +29 \\ \hline 81 \end{array}$$

$$\begin{array}{r} 52 \\ +29 \\ \hline 81 \end{array}$$

addend
addend
sum

Add.

| | | | | | | |
|-----------|--|--|--|--|---|---|
| 1. | a | b | c | d | e | f |
| | $\begin{array}{r} 36 \\ +15 \\ \hline \end{array}$ | $\begin{array}{r} 29 \\ +18 \\ \hline \end{array}$ | $\begin{array}{r} 57 \\ +23 \\ \hline \end{array}$ | $\begin{array}{r} 18 \\ +13 \\ \hline \end{array}$ | $\begin{array}{r} 74 \\ +6 \\ \hline \end{array}$ | $\begin{array}{r} 8 \\ +27 \\ \hline \end{array}$ |

| | | | | | | |
|-----------|---|--|--|--|--|--|
| 2. | $\begin{array}{r} 88 \\ +3 \\ \hline \end{array}$ | $\begin{array}{r} 47 \\ +17 \\ \hline \end{array}$ | $\begin{array}{r} 27 \\ +47 \\ \hline \end{array}$ | $\begin{array}{r} 55 \\ +26 \\ \hline \end{array}$ | $\begin{array}{r} 19 \\ +15 \\ \hline \end{array}$ | $\begin{array}{r} 51 \\ +19 \\ \hline \end{array}$ |
|-----------|---|--|--|--|--|--|

| | | | | | | |
|-----------|--|--|--|--|--|--|
| 3. | $\begin{array}{r} 65 \\ +26 \\ \hline \end{array}$ | $\begin{array}{r} 39 \\ +39 \\ \hline \end{array}$ | $\begin{array}{r} 25 \\ +25 \\ \hline \end{array}$ | $\begin{array}{r} 45 \\ +45 \\ \hline \end{array}$ | $\begin{array}{r} 36 \\ +48 \\ \hline \end{array}$ | $\begin{array}{r} 75 \\ +16 \\ \hline \end{array}$ |
|-----------|--|--|--|--|--|--|

| | | | | | | |
|-----------|--|--|--|--|--|--|
| 4. | $\begin{array}{r} 37 \\ +26 \\ \hline \end{array}$ | $\begin{array}{r} 14 \\ +48 \\ \hline \end{array}$ | $\begin{array}{r} 13 \\ +68 \\ \hline \end{array}$ | $\begin{array}{r} 48 \\ +22 \\ \hline \end{array}$ | $\begin{array}{r} 37 \\ +17 \\ \hline \end{array}$ | $\begin{array}{r} 72 \\ +18 \\ \hline \end{array}$ |
|-----------|--|--|--|--|--|--|

| | | | | | | |
|-----------|--|---|---|---|---|--|
| 5. | $\begin{array}{r} 65 \\ +25 \\ \hline \end{array}$ | $\begin{array}{r} 9 \\ +48 \\ \hline \end{array}$ | $\begin{array}{r} 7 \\ +77 \\ \hline \end{array}$ | $\begin{array}{r} 82 \\ +9 \\ \hline \end{array}$ | $\begin{array}{r} 28 \\ +9 \\ \hline \end{array}$ | $\begin{array}{r} 48 \\ +32 \\ \hline \end{array}$ |
|-----------|--|---|---|---|---|--|

| | | | | | | |
|-----------|--|--|---|--|--|---|
| 6. | $\begin{array}{r} 39 \\ +29 \\ \hline \end{array}$ | $\begin{array}{r} 28 \\ +28 \\ \hline \end{array}$ | $\begin{array}{r} 29 \\ +9 \\ \hline \end{array}$ | $\begin{array}{r} 28 \\ +57 \\ \hline \end{array}$ | $\begin{array}{r} 19 \\ +14 \\ \hline \end{array}$ | $\begin{array}{r} 9 \\ +72 \\ \hline \end{array}$ |
|-----------|--|--|---|--|--|---|

| | | | | | | |
|-----------|---|---|--|--|--|--|
| 7. | $\begin{array}{r} 75 \\ +7 \\ \hline \end{array}$ | $\begin{array}{r} 73 \\ +9 \\ \hline \end{array}$ | $\begin{array}{r} 36 \\ +36 \\ \hline \end{array}$ | $\begin{array}{r} 78 \\ +18 \\ \hline \end{array}$ | $\begin{array}{r} 19 \\ +19 \\ \hline \end{array}$ | $\begin{array}{r} 43 \\ +17 \\ \hline \end{array}$ |
|-----------|---|---|--|--|--|--|

Lesson 1.5 Adding Three or More Numbers (2 digit)

addend \longrightarrow 26
 addend \longrightarrow 38
 addend \longrightarrow +56

6 + 8 + 6 = 20 20 = 20 + 0

20 + 20 + 30 + 50 = 120 120 = 100 + 20

Add the ones.

26
38
+56

2
26
38
+56

0

2
26
38
+56

120

sum

Add.

- | | a | b | c | d | e | f |
|-----------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 1. | 27 32 +43 | 39 48 +76 | 48 68 +78 | 97 85 +63 | 45 74 +48 | 97 23 +19 |
| 2. | 77 99 +32 | 81 19 +38 | 53 78 +89 | 75 69 +78 | 38 57 +75 | 92 89 +95 |
| 3. | 37 29 +49 | 87 78 +95 | 38 49 +57 | 42 28 +66 | 56 65 +77 | 19 37 +49 |
| 4. | 35 73 57 +66 | 73 28 40 +66 | 88 22 38 +82 | 75 24 93 +51 | 29 93 37 +55 | 21 62 45 +38 |
| 5. | 51 71 89 +99 | 20 18 39 +47 | 17 45 83 +97 | 27 58 74 +63 | 13 39 57 +89 | 57 33 71 +66 |
| 6. | 39 29 58 +78 | 13 25 77 +89 | 27 53 68 +74 | 27 48 31 +97 | 22 17 39 +45 | 39 49 66 +77 |

Lesson 1.6**Subtracting 2 Digits from 3 Digits
(with renaming)**

To subtract the ones, rename 5 tens and 3 ones as "4 tens and 13 ones."

$$\begin{array}{r} \text{minuend} \rightarrow 153 \\ \text{subtrahend} \rightarrow -37 \\ \hline \text{difference} \rightarrow \end{array}$$

$$\begin{array}{r} 4\ 13 \\ 1\ \cancel{5}\ \cancel{3} \\ - 37 \\ \hline \end{array}$$

Subtract
the ones.

$$\begin{array}{r} 4\ 13 \\ 1\ \cancel{5}\ \cancel{3} \\ - 37 \\ \hline 6 \end{array}$$

Subtract
the tens.

$$\begin{array}{r} 4\ 13 \\ 1\ \cancel{5}\ \cancel{3} \\ - 37 \\ \hline 16 \end{array}$$

Subtract the
hundreds.

$$\begin{array}{r} 4\ 13 \\ 1\ \cancel{5}\ \cancel{3} \\ - 37 \\ \hline 116 \end{array}$$

Subtract.

1.

$$\begin{array}{r} 175 \\ - 38 \\ \hline \end{array}$$

b

$$\begin{array}{r} 132 \\ - 17 \\ \hline \end{array}$$

c

$$\begin{array}{r} 175 \\ - 56 \\ \hline \end{array}$$

d

$$\begin{array}{r} 134 \\ - 29 \\ \hline \end{array}$$

e

$$\begin{array}{r} 144 \\ - 28 \\ \hline \end{array}$$

f

$$\begin{array}{r} 156 \\ - 38 \\ \hline \end{array}$$

2.

$$\begin{array}{r} 182 \\ - 73 \\ \hline \end{array}$$

$$\begin{array}{r} 177 \\ - 59 \\ \hline \end{array}$$

$$\begin{array}{r} 123 \\ - 18 \\ \hline \end{array}$$

$$\begin{array}{r} 141 \\ - 33 \\ \hline \end{array}$$

$$\begin{array}{r} 173 \\ - 54 \\ \hline \end{array}$$

$$\begin{array}{r} 182 \\ - 48 \\ \hline \end{array}$$

3.

$$\begin{array}{r} 141 \\ - 29 \\ \hline \end{array}$$

$$\begin{array}{r} 193 \\ - 47 \\ \hline \end{array}$$

$$\begin{array}{r} 165 \\ - 46 \\ \hline \end{array}$$

$$\begin{array}{r} 152 \\ - 37 \\ \hline \end{array}$$

$$\begin{array}{r} 172 \\ - 29 \\ \hline \end{array}$$

$$\begin{array}{r} 161 \\ - 27 \\ \hline \end{array}$$

4.

$$\begin{array}{r} 183 \\ - 68 \\ \hline \end{array}$$

$$\begin{array}{r} 127 \\ - 18 \\ \hline \end{array}$$

$$\begin{array}{r} 134 \\ - 19 \\ \hline \end{array}$$

$$\begin{array}{r} 172 \\ - 57 \\ \hline \end{array}$$

$$\begin{array}{r} 124 \\ - 17 \\ \hline \end{array}$$

$$\begin{array}{r} 153 \\ - 37 \\ \hline \end{array}$$

5.

$$\begin{array}{r} 171 \\ - 39 \\ \hline \end{array}$$

$$\begin{array}{r} 146 \\ - 27 \\ \hline \end{array}$$

$$\begin{array}{r} 183 \\ - 68 \\ \hline \end{array}$$

$$\begin{array}{r} 191 \\ - 72 \\ \hline \end{array}$$

$$\begin{array}{r} 173 \\ - 47 \\ \hline \end{array}$$

$$\begin{array}{r} 157 \\ - 38 \\ \hline \end{array}$$

6.

$$\begin{array}{r} 128 \\ - 19 \\ \hline \end{array}$$

$$\begin{array}{r} 172 \\ - 36 \\ \hline \end{array}$$

$$\begin{array}{r} 156 \\ - 29 \\ \hline \end{array}$$

$$\begin{array}{r} 177 \\ - 39 \\ \hline \end{array}$$

$$\begin{array}{r} 152 \\ - 19 \\ \hline \end{array}$$

$$\begin{array}{r} 174 \\ - 38 \\ \hline \end{array}$$

7.

$$\begin{array}{r} 145 \\ - 26 \\ \hline \end{array}$$

$$\begin{array}{r} 161 \\ - 33 \\ \hline \end{array}$$

$$\begin{array}{r} 173 \\ - 37 \\ \hline \end{array}$$

$$\begin{array}{r} 127 \\ - 18 \\ \hline \end{array}$$

$$\begin{array}{r} 153 \\ - 28 \\ \hline \end{array}$$

$$\begin{array}{r} 191 \\ - 73 \\ \hline \end{array}$$

Lesson 1.6 Subtracting 2 Digits from 3 Digits (with renaming)

Rename 515 as
"5 hundreds, 0 tens,
and 15 ones."
Subtract the ones.

$$\begin{array}{r} 515 \\ - 27 \\ \hline \end{array}$$

$$\begin{array}{r} 015 \\ 5\cancel{1}\cancel{5} \\ - 27 \\ \hline 8 \end{array}$$

Then, rename
"4 hundreds, 10 tens,
and 15 ones."
Subtract the tens.

$$\begin{array}{r} 41015 \\ \cancel{5}\cancel{1}\cancel{5} \\ - 27 \\ \hline 88 \end{array}$$

Subtract
the
hundreds.

$$\begin{array}{r} 41015 \\ \cancel{5}\cancel{1}\cancel{5} \\ - 27 \\ \hline 488 \end{array}$$

← minuvend
← subtrahend
← difference

Subtract.

- | | a | b | c | d | e | f |
|----|--|--|--|--|--|--|
| 1. | $\begin{array}{r} 138 \\ - 59 \\ \hline \end{array}$ | $\begin{array}{r} 162 \\ - 79 \\ \hline \end{array}$ | $\begin{array}{r} 155 \\ - 66 \\ \hline \end{array}$ | $\begin{array}{r} 128 \\ - 59 \\ \hline \end{array}$ | $\begin{array}{r} 147 \\ - 58 \\ \hline \end{array}$ | $\begin{array}{r} 174 \\ - 85 \\ \hline \end{array}$ |
| 2. | $\begin{array}{r} 131 \\ - 49 \\ \hline \end{array}$ | $\begin{array}{r} 153 \\ - 67 \\ \hline \end{array}$ | $\begin{array}{r} 167 \\ - 79 \\ \hline \end{array}$ | $\begin{array}{r} 144 \\ - 58 \\ \hline \end{array}$ | $\begin{array}{r} 172 \\ - 89 \\ \hline \end{array}$ | $\begin{array}{r} 125 \\ - 38 \\ \hline \end{array}$ |
| 3. | $\begin{array}{r} 114 \\ - 37 \\ \hline \end{array}$ | $\begin{array}{r} 134 \\ - 56 \\ \hline \end{array}$ | $\begin{array}{r} 181 \\ - 92 \\ \hline \end{array}$ | $\begin{array}{r} 133 \\ - 44 \\ \hline \end{array}$ | $\begin{array}{r} 127 \\ - 49 \\ \hline \end{array}$ | $\begin{array}{r} 174 \\ - 88 \\ \hline \end{array}$ |
| 4. | $\begin{array}{r} 122 \\ - 88 \\ \hline \end{array}$ | $\begin{array}{r} 154 \\ - 77 \\ \hline \end{array}$ | $\begin{array}{r} 161 \\ - 94 \\ \hline \end{array}$ | $\begin{array}{r} 166 \\ - 87 \\ \hline \end{array}$ | $\begin{array}{r} 127 \\ - 58 \\ \hline \end{array}$ | $\begin{array}{r} 172 \\ - 99 \\ \hline \end{array}$ |
| 5. | $\begin{array}{r} 177 \\ - 88 \\ \hline \end{array}$ | $\begin{array}{r} 123 \\ - 45 \\ \hline \end{array}$ | $\begin{array}{r} 147 \\ - 68 \\ \hline \end{array}$ | $\begin{array}{r} 181 \\ - 95 \\ \hline \end{array}$ | $\begin{array}{r} 175 \\ - 89 \\ \hline \end{array}$ | $\begin{array}{r} 141 \\ - 83 \\ \hline \end{array}$ |
| 6. | $\begin{array}{r} 185 \\ - 97 \\ \hline \end{array}$ | $\begin{array}{r} 173 \\ - 87 \\ \hline \end{array}$ | $\begin{array}{r} 142 \\ - 84 \\ \hline \end{array}$ | $\begin{array}{r} 177 \\ - 98 \\ \hline \end{array}$ | $\begin{array}{r} 136 \\ - 49 \\ \hline \end{array}$ | $\begin{array}{r} 123 \\ - 77 \\ \hline \end{array}$ |
| 7. | $\begin{array}{r} 127 \\ - 58 \\ \hline \end{array}$ | $\begin{array}{r} 126 \\ - 78 \\ \hline \end{array}$ | $\begin{array}{r} 166 \\ - 89 \\ \hline \end{array}$ | $\begin{array}{r} 137 \\ - 88 \\ \hline \end{array}$ | $\begin{array}{r} 153 \\ - 84 \\ \hline \end{array}$ | $\begin{array}{r} 175 \\ - 97 \\ \hline \end{array}$ |

Lesson 1.7**Thinking Subtraction for Addition**

These numbers should be the same.

$$\begin{array}{r}
 55 \\
 + 43 \\
 \hline
 98 \\
 - 43 \\
 \hline
 55
 \end{array}$$

To check

 $55 + 43 = 98$,
 subtract 43 from 98.

Add. Then, check your answer.

| | | | | | | |
|-----------|---|---|---|---|---|---|
| | a | b | c | d | e | f |
| 1. | $\begin{array}{r} 32 \\ + 47 \\ \hline \end{array}$ | $\begin{array}{r} 63 \\ + 19 \\ \hline \end{array}$ | $\begin{array}{r} 38 \\ + 24 \\ \hline \end{array}$ | $\begin{array}{r} 52 \\ + 47 \\ \hline \end{array}$ | $\begin{array}{r} 28 \\ + 15 \\ \hline \end{array}$ | $\begin{array}{r} 75 \\ + 15 \\ \hline \end{array}$ |
| | $\begin{array}{r} \hline \end{array}$ | $\begin{array}{r} \hline \end{array}$ | $\begin{array}{r} \hline \end{array}$ | $\begin{array}{r} \hline \end{array}$ | $\begin{array}{r} \hline \end{array}$ | $\begin{array}{r} \hline \end{array}$ |

| | | | | | | |
|-----------|---|---|---|---|---|---|
| 2. | $\begin{array}{r} 48 \\ + 27 \\ \hline \end{array}$ | $\begin{array}{r} 82 \\ + 10 \\ \hline \end{array}$ | $\begin{array}{r} 56 \\ + 38 \\ \hline \end{array}$ | $\begin{array}{r} 44 \\ + 27 \\ \hline \end{array}$ | $\begin{array}{r} 28 \\ + 27 \\ \hline \end{array}$ | $\begin{array}{r} 39 \\ + 32 \\ \hline \end{array}$ |
| | $\begin{array}{r} \hline \end{array}$ | $\begin{array}{r} \hline \end{array}$ | $\begin{array}{r} \hline \end{array}$ | $\begin{array}{r} \hline \end{array}$ | $\begin{array}{r} \hline \end{array}$ | $\begin{array}{r} \hline \end{array}$ |

| | | | | | | |
|-----------|---|---|---|--|--|--|
| 3. | $\begin{array}{r} 31 \\ + 59 \\ \hline \end{array}$ | $\begin{array}{r} 43 \\ + 18 \\ \hline \end{array}$ | $\begin{array}{r} 61 \\ + 29 \\ \hline \end{array}$ | $\begin{array}{r} 125 \\ + 17 \\ \hline \end{array}$ | $\begin{array}{r} 155 \\ + 38 \\ \hline \end{array}$ | $\begin{array}{r} 205 \\ + 69 \\ \hline \end{array}$ |
| | $\begin{array}{r} \hline \end{array}$ | $\begin{array}{r} \hline \end{array}$ | $\begin{array}{r} \hline \end{array}$ | $\begin{array}{r} \hline \end{array}$ | $\begin{array}{r} \hline \end{array}$ | $\begin{array}{r} \hline \end{array}$ |

| | | | | | | |
|-----------|--|--|--|--|--|--|
| 4. | $\begin{array}{r} 199 \\ + 14 \\ \hline \end{array}$ | $\begin{array}{r} 128 \\ + 33 \\ \hline \end{array}$ | $\begin{array}{r} 125 \\ + 50 \\ \hline \end{array}$ | $\begin{array}{r} 109 \\ + 32 \\ \hline \end{array}$ | $\begin{array}{r} 155 \\ + 27 \\ \hline \end{array}$ | $\begin{array}{r} 137 \\ + 29 \\ \hline \end{array}$ |
| | $\begin{array}{r} \hline \end{array}$ | $\begin{array}{r} \hline \end{array}$ | $\begin{array}{r} \hline \end{array}$ | $\begin{array}{r} \hline \end{array}$ | $\begin{array}{r} \hline \end{array}$ | $\begin{array}{r} \hline \end{array}$ |

Lesson 1.8 Thinking Addition for Subtraction

These numbers should be the same.

$$\begin{array}{r}
 138 \\
 - 24 \\
 \hline
 114 \\
 + 24 \\
 \hline
 138
 \end{array}$$

To check

$$138 - 24 = 114,$$

add 24 to 114.

Subtract. Then, check your answer.

| | a | b | c | d | e | f |
|-----------|--|--|--|--|--|--|
| 1. | $ \begin{array}{r} 88 \\ - 45 \\ \hline \end{array} $ | $ \begin{array}{r} 23 \\ - 19 \\ \hline \end{array} $ | $ \begin{array}{r} 47 \\ - 28 \\ \hline \end{array} $ | $ \begin{array}{r} 95 \\ - 38 \\ \hline \end{array} $ | $ \begin{array}{r} 74 \\ - 27 \\ \hline \end{array} $ | $ \begin{array}{r} 98 \\ - 73 \\ \hline \end{array} $ |
| | $ \begin{array}{r} + \\ \hline \end{array} $ | $ \begin{array}{r} + \\ \hline \end{array} $ | $ \begin{array}{r} + \\ \hline \end{array} $ | $ \begin{array}{r} + \\ \hline \end{array} $ | $ \begin{array}{r} + \\ \hline \end{array} $ | $ \begin{array}{r} + \\ \hline \end{array} $ |
| 2. | $ \begin{array}{r} 38 \\ - 17 \\ \hline \end{array} $ | $ \begin{array}{r} 68 \\ - 27 \\ \hline \end{array} $ | $ \begin{array}{r} 54 \\ - 36 \\ \hline \end{array} $ | $ \begin{array}{r} 49 \\ - 32 \\ \hline \end{array} $ | $ \begin{array}{r} 29 \\ - 10 \\ \hline \end{array} $ | $ \begin{array}{r} 78 \\ - 39 \\ \hline \end{array} $ |
| | $ \begin{array}{r} + \\ \hline \end{array} $ | $ \begin{array}{r} + \\ \hline \end{array} $ | $ \begin{array}{r} + \\ \hline \end{array} $ | $ \begin{array}{r} + \\ \hline \end{array} $ | $ \begin{array}{r} + \\ \hline \end{array} $ | $ \begin{array}{r} + \\ \hline \end{array} $ |
| 3. | $ \begin{array}{r} 155 \\ - 28 \\ \hline \end{array} $ | $ \begin{array}{r} 132 \\ - 38 \\ \hline \end{array} $ | $ \begin{array}{r} 179 \\ - 82 \\ \hline \end{array} $ | $ \begin{array}{r} 127 \\ - 89 \\ \hline \end{array} $ | $ \begin{array}{r} 141 \\ - 62 \\ \hline \end{array} $ | $ \begin{array}{r} 137 \\ - 52 \\ \hline \end{array} $ |
| | $ \begin{array}{r} + \\ \hline \end{array} $ | $ \begin{array}{r} + \\ \hline \end{array} $ | $ \begin{array}{r} + \\ \hline \end{array} $ | $ \begin{array}{r} + \\ \hline \end{array} $ | $ \begin{array}{r} + \\ \hline \end{array} $ | $ \begin{array}{r} + \\ \hline \end{array} $ |
| 4. | $ \begin{array}{r} 187 \\ - 99 \\ \hline \end{array} $ | $ \begin{array}{r} 119 \\ - 20 \\ \hline \end{array} $ | $ \begin{array}{r} 192 \\ - 73 \\ \hline \end{array} $ | $ \begin{array}{r} 108 \\ - 39 \\ \hline \end{array} $ | $ \begin{array}{r} 188 \\ - 90 \\ \hline \end{array} $ | $ \begin{array}{r} 164 \\ - 78 \\ \hline \end{array} $ |
| | $ \begin{array}{r} + \\ \hline \end{array} $ | $ \begin{array}{r} + \\ \hline \end{array} $ | $ \begin{array}{r} + \\ \hline \end{array} $ | $ \begin{array}{r} + \\ \hline \end{array} $ | $ \begin{array}{r} + \\ \hline \end{array} $ | $ \begin{array}{r} + \\ \hline \end{array} $ |

Lesson 1.9**Problem Solving****SHOW YOUR WORK**

Solve each problem.

1. Isabel Jones needs to sell 175 calendars to raise money for the school band. She already sold 89 calendars. How many more calendars does she have to sell?

She has to sell _____ calendars.

2. Jacob Elementary School had a book drive. On Monday, the students collected 95 books. They collected 78 more books on Tuesday. How many books did the students collect?

The students collected _____ books.

3. The Grover family went on a spring vacation. Their cabin is 305 miles away. If they drive 98 miles the first day, how many more miles do they have to drive to get to the cabin?

They must drive _____ more miles.

4. The school cafeteria had an all-you-can-eat pizza party for the entire school. They made 215 slices of cheese pizza and 120 slices of pepperoni pizza. How many slices of pizza did they make?

They made _____ slices of pizza.

5. There are 250 species of turtles and tortoises in the world. If there are 86 species listed as endangered, how many species of turtles and tortoises are not endangered?

There are _____ species of turtles and tortoises that are not endangered.

1.

2.

3.

4.

5.



Check What You Learned

Adding and Subtracting 1 and 2 Digits

Add or subtract.

| | a | b | c | d | e | f |
|-----|---|--|---|---|--|--|
| 1. | $\begin{array}{r} 43 \\ + 27 \\ \hline \end{array}$ | $\begin{array}{r} 57 \\ + 21 \\ \hline \end{array}$ | $\begin{array}{r} 37 \\ + 15 \\ \hline \end{array}$ | $\begin{array}{r} 73 \\ + 28 \\ \hline \end{array}$ | $\begin{array}{r} 256 \\ + 43 \\ \hline \end{array}$ | $\begin{array}{r} 75 \\ + 25 \\ \hline \end{array}$ |
| 2. | $\begin{array}{r} 13 \\ 10 \\ + 8 \\ \hline \end{array}$ | $\begin{array}{r} 27 \\ 5 \\ + 23 \\ \hline \end{array}$ | $\begin{array}{r} 238 \\ + 68 \\ \hline \end{array}$ | $\begin{array}{r} 91 \\ 82 \\ + 73 \\ \hline \end{array}$ | $\begin{array}{r} 105 \\ 92 \\ + 14 \\ \hline \end{array}$ | $\begin{array}{r} 156 \\ + 48 \\ \hline \end{array}$ |
| 3. | $\begin{array}{r} 21 \\ + 13 \\ \hline \end{array}$ | $\begin{array}{r} 253 \\ + 42 \\ \hline \end{array}$ | $\begin{array}{r} 137 \\ + 28 \\ \hline \end{array}$ | $\begin{array}{r} 79 \\ + 97 \\ \hline \end{array}$ | $\begin{array}{r} 103 \\ + 18 \\ \hline \end{array}$ | $\begin{array}{r} 65 \\ + 17 \\ \hline \end{array}$ |
| 4. | $\begin{array}{r} 73 \\ 21 \\ + 10 \\ \hline \end{array}$ | $\begin{array}{r} 432 \\ + 48 \\ \hline \end{array}$ | $\begin{array}{r} 14 \\ 18 \\ + 32 \\ \hline \end{array}$ | $\begin{array}{r} 66 \\ + 34 \\ \hline \end{array}$ | $\begin{array}{r} 34 \\ 45 \\ + 57 \\ \hline \end{array}$ | $\begin{array}{r} 13 \\ + 74 \\ \hline \end{array}$ |
| 5. | $\begin{array}{r} 77 \\ + 15 \\ \hline \end{array}$ | $\begin{array}{r} 104 \\ + 76 \\ \hline \end{array}$ | $\begin{array}{r} 90 \\ + 45 \\ \hline \end{array}$ | $\begin{array}{r} 143 \\ + 38 \\ \hline \end{array}$ | $\begin{array}{r} 103 \\ + 97 \\ \hline \end{array}$ | $\begin{array}{r} 91 \\ + 17 \\ \hline \end{array}$ |
| 6. | $\begin{array}{r} 245 \\ - 32 \\ \hline \end{array}$ | $\begin{array}{r} 105 \\ - 16 \\ \hline \end{array}$ | $\begin{array}{r} 35 \\ - 12 \\ \hline \end{array}$ | $\begin{array}{r} 72 \\ - 28 \\ \hline \end{array}$ | $\begin{array}{r} 91 \\ - 73 \\ \hline \end{array}$ | $\begin{array}{r} 35 \\ - 7 \\ \hline \end{array}$ |
| 7. | $\begin{array}{r} 107 \\ - 34 \\ \hline \end{array}$ | $\begin{array}{r} 94 \\ - 25 \\ \hline \end{array}$ | $\begin{array}{r} 215 \\ - 26 \\ \hline \end{array}$ | $\begin{array}{r} 88 \\ - 49 \\ \hline \end{array}$ | $\begin{array}{r} 173 \\ - 28 \\ \hline \end{array}$ | $\begin{array}{r} 72 \\ - 61 \\ \hline \end{array}$ |
| 8. | $\begin{array}{r} 35 \\ - 16 \\ \hline \end{array}$ | $\begin{array}{r} 108 \\ - 19 \\ \hline \end{array}$ | $\begin{array}{r} 51 \\ - 32 \\ \hline \end{array}$ | $\begin{array}{r} 125 \\ - 15 \\ \hline \end{array}$ | $\begin{array}{r} 199 \\ - 84 \\ \hline \end{array}$ | $\begin{array}{r} 84 \\ - 26 \\ \hline \end{array}$ |
| 9. | $\begin{array}{r} 147 \\ - 48 \\ \hline \end{array}$ | $\begin{array}{r} 62 \\ - 22 \\ \hline \end{array}$ | $\begin{array}{r} 57 \\ - 32 \\ \hline \end{array}$ | $\begin{array}{r} 111 \\ - 12 \\ \hline \end{array}$ | $\begin{array}{r} 123 \\ - 48 \\ \hline \end{array}$ | $\begin{array}{r} 92 \\ - 29 \\ \hline \end{array}$ |
| 10. | $\begin{array}{r} 187 \\ - 38 \\ \hline \end{array}$ | $\begin{array}{r} 55 \\ - 18 \\ \hline \end{array}$ | $\begin{array}{r} 110 \\ - 32 \\ \hline \end{array}$ | $\begin{array}{r} 36 \\ - 17 \\ \hline \end{array}$ | $\begin{array}{r} 192 \\ - 83 \\ \hline \end{array}$ | $\begin{array}{r} 44 \\ - 25 \\ \hline \end{array}$ |

**Check What You Learned****SHOW YOUR WORK****Adding and Subtracting 1 and 2 Digits**

Solve each problem.

- 11.** Tonya and her friends are collecting cans to recycle. Tonya has 55 cans, Irene has 32 cans, and Heather has 13 cans. How many cans do they have altogether?

They have _____ cans.

- 12.** The Liberty football team is raising money for its new uniforms by running a car wash. They need to wash 210 cars to raise all the money. If they have washed 98 cars already, how many more cars do they need to wash?

They need to wash _____ more cars.

- 13.** Ms. Yolanda Brooks' science class is studying the environment around the school. The boys in the class counted 57 different plants and the girls counted 25 different types of animals. How many plants and animals did the class find altogether?

The class found _____ plants and animals.

- 14.** On a field trip, two sisters found frog eggs in a pond. Desiree found 82 eggs and Shanee found 118 eggs. How many frog eggs did the sisters find?

They found _____ frog eggs.

- 15.** At the bake sale, students brought in 115 different types of cupcakes, 95 types of brownies, and 85 types of cookies. How many different types of baked goods did the students bring in?

They brought in _____ different types of baked goods.

11.**12.****13.****14.****15.**



Check What You Know

Numeration through 1,000,000

Write each number in expanded form.

1. ^a
3,245

^b
973

^c
51

2. 6,675

845,450

790

What digit is in the place named?

3. ^a
945
tens
_____ is in the tens place.

^b
4,332
hundreds
_____ is in the hundreds place.

4. 52,321
thousands
_____ is in the thousands place.

528,455
ones
_____ is in the ones place.

5. 495,362
ten thousands
_____ is in the ten thousands place.

9,365,732
millions
_____ is in the millions place.

Compare each pair of numbers. Write $>$, $<$, or $=$.

6. ^a
4,312 $\underline{\hspace{1cm}}$ 4,213

^b
95 $\underline{\hspace{1cm}}$ 58

^c
408 $\underline{\hspace{1cm}}$ 480

7. 52,650 $\underline{\hspace{1cm}}$ 52,560

610 $\underline{\hspace{1cm}}$ 672

72 $\underline{\hspace{1cm}}$ 62

8. 52,173 $\underline{\hspace{1cm}}$ 520,173 4,675,321 $\underline{\hspace{1cm}}$ 4,751,670

25 $\underline{\hspace{1cm}}$ 52

9. 158,325 $\underline{\hspace{1cm}}$ 158,325

652 $\underline{\hspace{1cm}}$ 256

8,910,003 $\underline{\hspace{1cm}}$ 8,910,003



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Lesson 6.3 Dividing 3 Digits

Since $100 \times 8 = 800$ and 800 is greater than 453, there is no hundred digit.

$$8 \overline{) 453}$$

| x | 10 | 20 | 30 | 40 | 50 | 60 |
|---|----|-----|-----|-----|-----|-----|
| 8 | 80 | 160 | 240 | 320 | 400 | 480 |

453 is between 400 and 480. $453 \div 8$ is between 50 and 60. The tens digit is 5.

$$\begin{array}{r} 5 \\ 8 \overline{) 453} \\ - 40 \quad 8 \times 5 = 40 \\ \hline 53 \text{ Subtract} \end{array}$$

| x | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|----|----|----|----|----|----|
| 8 | 8 | 16 | 24 | 32 | 40 | 48 | 56 |

53 is between 48 and 56. $53 \div 8$ is between 6 and 7. The ones digit is 6.

$$\begin{array}{r} 56 \text{ r } 5 \\ 8 \overline{) 453} \\ - 40 \\ \hline 53 \quad 8 \times 6 = 48 \\ - 48 \quad \text{Subtract} \\ \hline 5 \quad \text{Remainder} \end{array}$$

Divide.

a

1. $8 \overline{) 720}$

b

$4 \overline{) 372}$

c

$9 \overline{) 372}$

d

$4 \overline{) 173}$

e

$2 \overline{) 150}$

2. $6 \overline{) 552}$

$3 \overline{) 139}$

$4 \overline{) 248}$

$9 \overline{) 890}$

$5 \overline{) 105}$

3. $9 \overline{) 780}$

$5 \overline{) 225}$

$9 \overline{) 813}$

$7 \overline{) 511}$

$3 \overline{) 110}$



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**Check What You Learned****Dividing 2 and 3 Digits by 1 Digit**

Divide.

a**b****c****d****e**

1. $2 \overline{) 32}$

$3 \overline{) 321}$

$3 \overline{) 49}$

$8 \overline{) 97}$

$2 \overline{) 178}$

2. $4 \overline{) 121}$

$6 \overline{) 798}$

$5 \overline{) 557}$

$6 \overline{) 636}$

$8 \overline{) 889}$

3. $2 \overline{) 96}$

$3 \overline{) 87}$

$8 \overline{) 93}$

$3 \overline{) 42}$

$7 \overline{) 31}$

4. $8 \overline{) 75}$

$2 \overline{) 19}$

$8 \overline{) 43}$

$9 \overline{) 89}$

$3 \overline{) 66}$

5. $3 \overline{) 603}$

$5 \overline{) 917}$

$6 \overline{) 762}$

$7 \overline{) 37}$

$2 \overline{) 48}$



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Mid-Test Chapters 1–6

Subtract.

| | | | | | |
|------------|--|---|--|---|--|
| | a | b | c | d | e |
| 19. | $\begin{array}{r} 32146 \\ - 3132 \\ \hline \end{array}$ | $\begin{array}{r} 67315 \\ - 14305 \\ \hline \end{array}$ | $\begin{array}{r} 40195 \\ - 9186 \\ \hline \end{array}$ | $\begin{array}{r} 75532 \\ - 21530 \\ \hline \end{array}$ | $\begin{array}{r} 25789 \\ - 6642 \\ \hline \end{array}$ |

| | | | | | |
|------------|--|---|---|---|---|
| 20. | $\begin{array}{r} 17315 \\ - 8904 \\ \hline \end{array}$ | $\begin{array}{r} 98789 \\ - 73979 \\ \hline \end{array}$ | $\begin{array}{r} 42804 \\ - 38709 \\ \hline \end{array}$ | $\begin{array}{r} 87897 \\ - 58898 \\ \hline \end{array}$ | $\begin{array}{r} 34932 \\ - 17983 \\ \hline \end{array}$ |
|------------|--|---|---|---|---|

Add.

| | | | | | |
|------------|---|--|---|---|--|
| 21. | $\begin{array}{r} 4132 \\ 714 \\ + 304 \\ \hline \end{array}$ | $\begin{array}{r} 32015 \\ + 7932 \\ \hline \end{array}$ | $\begin{array}{r} 8215 \\ 1730 \\ + 1045 \\ \hline \end{array}$ | $\begin{array}{r} 25713 \\ + 13846 \\ \hline \end{array}$ | $\begin{array}{r} 3014 \\ 1246 \\ + 710 \\ \hline \end{array}$ |
|------------|---|--|---|---|--|

| | | | | | |
|------------|--|---|---|--|--|
| 22. | $\begin{array}{r} 83548 \\ + 8162 \\ \hline \end{array}$ | $\begin{array}{r} 2315 \\ 1215 \\ 720 \\ + 214 \\ \hline \end{array}$ | $\begin{array}{r} 37805 \\ + 12125 \\ \hline \end{array}$ | $\begin{array}{r} 7300 \\ 715 \\ 243 \\ + 120 \\ \hline \end{array}$ | $\begin{array}{r} 71042 \\ + 8925 \\ \hline \end{array}$ |
|------------|--|---|---|--|--|

Estimate each sum or difference.

| | | | | | |
|------------|---|--|--|---|---|
| 23. | $\begin{array}{r} 5614 \\ + 3293 \\ \hline \end{array}$ | $\begin{array}{r} 26417 \\ + 2815 \\ \hline \end{array}$ | $\begin{array}{r} 4932 \\ + 512 \\ \hline \end{array}$ | $\begin{array}{r} 108765 \\ + 2046 \\ \hline \end{array}$ | $\begin{array}{r} 45059 \\ + 38712 \\ \hline \end{array}$ |
|------------|---|--|--|---|---|

| | | | | | |
|------------|--|---|---|---|--|
| 24. | $\begin{array}{r} 32564 \\ - 2198 \\ \hline \end{array}$ | $\begin{array}{r} 4397 \\ - 2810 \\ \hline \end{array}$ | $\begin{array}{r} 39702 \\ - 615 \\ \hline \end{array}$ | $\begin{array}{r} 32084 \\ - 18093 \\ \hline \end{array}$ | $\begin{array}{r} 9327 \\ - 452 \\ \hline \end{array}$ |
|------------|--|---|---|---|--|



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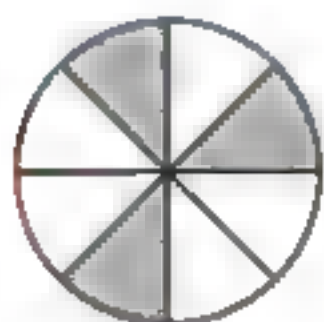


Check What You Know

Fractions, Decimals, and Money

What fraction of each figure is shaded?

1.

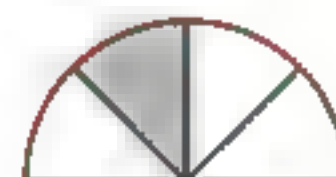


a

b



c



What fraction of each set is shaded?

2.







Compare each set of fractions. Use $>$, $<$, or $=$.

3.

$$\frac{3}{4} \quad \underline{\hspace{1cm}} \quad \frac{1}{4}$$

a

$$\frac{1}{2} \quad \underline{\hspace{1cm}} \quad \frac{2}{4}$$

b

$$\frac{7}{8} \quad \underline{\hspace{1cm}} \quad \frac{2}{8}$$

c

$$\frac{2}{8} \quad \underline{\hspace{1cm}} \quad \frac{4}{8}$$

d

Add the fractions.

4.

$$\frac{1}{2} + \frac{1}{2} = \underline{\hspace{2cm}}$$

$$\frac{3}{8} + \frac{2}{8} = \underline{\hspace{2cm}}$$

$$\frac{1}{4} + \frac{1}{4} = \underline{\hspace{2cm}}$$

$$\frac{2}{6} + \frac{1}{6} = \underline{\hspace{2cm}}$$

Subtract the fractions.

5.

$$\frac{7}{8} - \frac{2}{8} = \underline{\hspace{2cm}}$$

$$\frac{3}{4} - \frac{2}{4} = \underline{\hspace{2cm}}$$

$$\frac{2}{7} - \frac{2}{7} = \underline{\hspace{2cm}}$$

$$\frac{4}{4} - \frac{2}{4} = \underline{\hspace{2cm}}$$

Add or subtract.

6.

$$\begin{array}{r} 0.31 \\ + 0.20 \\ \hline \end{array}$$

a

$$\begin{array}{r} 0.75 \\ + 0.11 \\ \hline \end{array}$$

b

$$\begin{array}{r} 0.003 \\ + 0.720 \\ \hline \end{array}$$

c

$$\begin{array}{r} \$7.50 \\ + .25 \\ \hline \end{array}$$

d

$$\begin{array}{r} \$1.05 \\ + 1.03 \\ \hline \end{array}$$

e

7.

$$\begin{array}{r} 0.52 \\ - 0.08 \\ \hline \end{array}$$

$$\begin{array}{r} 0.83 \\ - 0.52 \\ \hline \end{array}$$

$$\begin{array}{r} \$15.23 \\ - 7.17 \\ \hline \end{array}$$

$$\begin{array}{r} \$125.13 \\ - 50.00 \\ \hline \end{array}$$

$$\begin{array}{r} 0.503 \\ - 0.410 \\ \hline \end{array}$$



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Lesson 7.3 Comparing Fractions

These fractions have the same denominators.

To find which fraction is larger, look at the numerator.

4 is greater than 3 so $3 < 4$.

$$\frac{3}{6} < \frac{4}{6}$$

Use $>$, $<$, or $=$ to compare the fractions.

1. ^a $\frac{3}{12}$ $\underline{\hspace{1cm}}$ $\frac{2}{12}$ ^b $\frac{3}{4}$ $\underline{\hspace{1cm}}$ $\frac{1}{4}$ ^c $\frac{5}{8}$ $\underline{\hspace{1cm}}$ $\frac{6}{8}$ ^d $\frac{1}{2}$ $\underline{\hspace{1cm}}$ $\frac{1}{2}$

2. $\frac{2}{3}$ $\underline{\hspace{1cm}}$ $\frac{1}{3}$ $\frac{2}{10}$ $\underline{\hspace{1cm}}$ $\frac{4}{10}$ $\frac{5}{8}$ $\underline{\hspace{1cm}}$ $\frac{3}{8}$ $\frac{11}{12}$ $\underline{\hspace{1cm}}$ $\frac{10}{12}$

3. $\frac{4}{5}$ $\underline{\hspace{1cm}}$ $\frac{4}{5}$ $\frac{7}{12}$ $\underline{\hspace{1cm}}$ $\frac{8}{12}$ $\frac{6}{10}$ $\underline{\hspace{1cm}}$ $\frac{5}{10}$ $\frac{3}{4}$ $\underline{\hspace{1cm}}$ $\frac{2}{4}$

4. $\frac{8}{12}$ $\underline{\hspace{1cm}}$ $\frac{6}{12}$ $\frac{4}{5}$ $\underline{\hspace{1cm}}$ $\frac{4}{5}$ $\frac{2}{4}$ $\underline{\hspace{1cm}}$ $\frac{1}{4}$ $\frac{5}{8}$ $\underline{\hspace{1cm}}$ $\frac{7}{8}$



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Lesson 7.7**Problem Solving****SHOW YOUR WORK**

Solve each problem.

1. Three sisters were told to wash the family car. Paula washed the front $\frac{1}{3}$ and Kelley washed the back $\frac{1}{3}$ of the car. Their sister Mandy didn't show up to wash her part of the car. How much of the car was washed?

_____ of the car was washed.

1.

2. Autumn has $\frac{3}{4}$ of a bag of apples to feed her horses. If she feeds $\frac{2}{4}$ of the apples to her favorite horse, how much of the bag is left to feed the other horses?

_____ of a bag of apples is left for the other horses.

2.

3. The library received $\frac{3}{5}$ of its book order. The next day, it received $\frac{1}{5}$ of the order. How much of the book order does the library have?

The library has _____ of the book order.

3.

4. A group of friends went to the movies. In the lobby, $\frac{4}{8}$ of the group decided to see a comedy and $\frac{2}{8}$ decided to see a mystery. How much of the group wanted to see either a comedy or a mystery?

_____ of the group wanted to see a comedy or a mystery.

4.

5. In the school cafeteria, $\frac{2}{7}$ of the students were fourth-graders and $\frac{3}{7}$ of the students were fifth-graders. How many students were from the fourth and fifth grades?

_____ of the students were from the fourth and fifth grades.

5.

6.

6. Koko has $\frac{1}{6}$ of her homework done. If she does another $\frac{4}{6}$ of her homework, how much of it will she have completed?

Koko will have completed _____ of her homework.



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Lesson 7.111**Adding and Subtracting Money**

Align

$$\begin{array}{r} \$13.45 \\ - 13.32 \\ \hline \$0.13 \end{array}$$

Add and subtract money the same way you add and subtract decimals. Align decimal points, and then add or subtract.

Align

$$\begin{array}{r} \$1032.35 \\ + 110.32 \\ \hline \$1142.67 \end{array}$$

Add.

$$\begin{array}{r} \text{a} \\ 1. \quad \$13.18 \\ + 7.23 \\ \hline \end{array} \quad \begin{array}{r} \text{b} \\ \$13.2 \\ + 1.28 \\ \hline \end{array} \quad \begin{array}{r} \text{c} \\ 72¢ \\ + 25¢ \\ \hline \end{array} \quad \begin{array}{r} \text{d} \\ 35¢ \\ + 21¢ \\ \hline \end{array} \quad \begin{array}{r} \text{e} \\ \$10.42 \\ + 1.38 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 52¢ \\ 25¢ \\ + 10¢ \\ \hline \end{array} \quad \begin{array}{r} \$10.75 \\ 5.35 \\ + 2.10 \\ \hline \end{array} \quad \begin{array}{r} \$1325.18 \\ 867.45 \\ + \\ \hline \end{array} \quad \begin{array}{r} \$3.05 \\ + 2.98 \\ \hline \end{array} \quad \begin{array}{r} 75¢ \\ 30¢ \\ + 25¢ \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad \$596.75 \\ + 13.30 \\ \hline \end{array} \quad \begin{array}{r} \$73.89 \\ + 23.75 \\ \hline \end{array} \quad \begin{array}{r} \$600.15 \\ + 300.17 \\ \hline \end{array} \quad \begin{array}{r} \$5617.52 \\ + 730.61 \\ \hline \end{array} \quad \begin{array}{r} \$105.88 \\ + 92.72 \\ \hline \end{array}$$

Subtract.

$$\begin{array}{r} 4. \quad \$615.38 \\ - 16.15 \\ \hline \end{array} \quad \begin{array}{r} 98¢ \\ - 43¢ \\ \hline \end{array} \quad \begin{array}{r} \$105.17 \\ - 9.37 \\ \hline \end{array} \quad \begin{array}{r} \$5680.18 \\ - 3127.15 \\ \hline \end{array} \quad \begin{array}{r} 85¢ \\ - 52¢ \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad \$99.99 \\ - 10.98 \\ \hline \end{array} \quad \begin{array}{r} \$29.85 \\ - 18.76 \\ \hline \end{array} \quad \begin{array}{r} \$42.05 \\ - 18.98 \\ \hline \end{array} \quad \begin{array}{r} 33¢ \\ - 17¢ \\ \hline \end{array} \quad \begin{array}{r} \$4176.00 \\ - 3042.05 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad \$313.78 \\ - 177.00 \\ \hline \end{array} \quad \begin{array}{r} \$1.19 \\ - 0.32 \\ \hline \end{array} \quad \begin{array}{r} \$27.98 \\ - 18.37 \\ \hline \end{array} \quad \begin{array}{r} \$1413.08 \\ - 852.18 \\ \hline \end{array} \quad \begin{array}{r} \$784.35 \\ - 518.75 \\ \hline \end{array}$$



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Check What You Know

Customary Measurement

Complete the following.

1. 36 inches = _____ yard a

8 quarts = _____ gallons b

2. 1 cup = _____ ounces

1 mile = _____ yards

3. 2 feet = _____ inches

10 cups = _____ pints

4. 3 feet = _____ yard

8 pints = _____ quarts

5. 10 pints = _____ cups

8 cups = _____ quarts

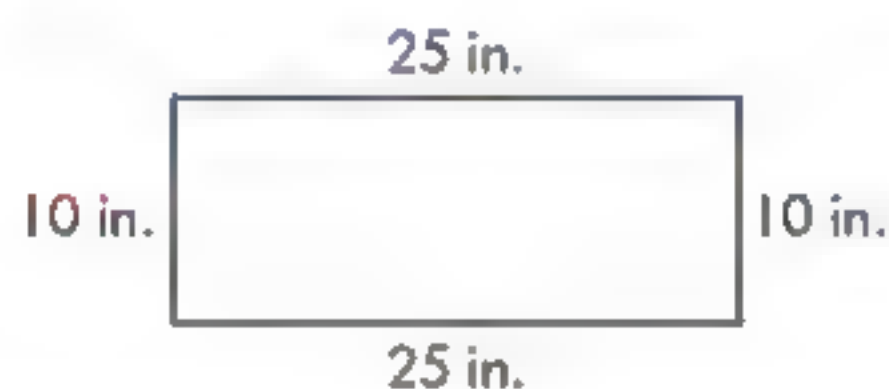
Measure each line to the nearest half inch.

6. _____ in. _____ in.

7. _____ in. _____ in.

Find the perimeter of each shape.

8.



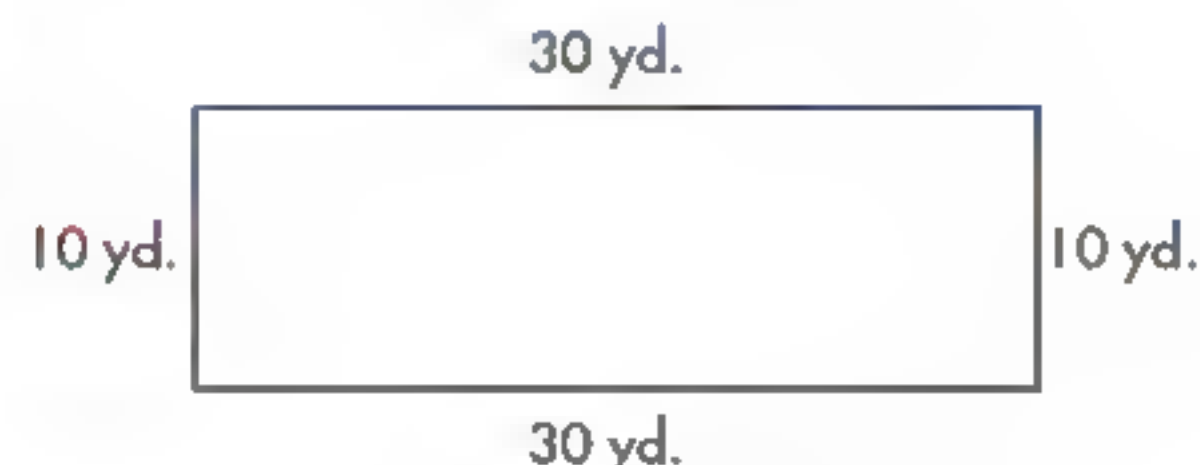
_____ inches



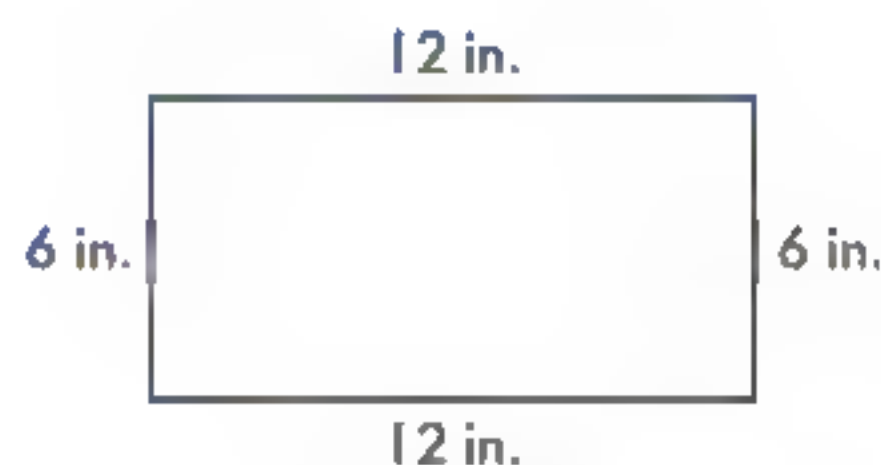
_____ feet

Find the area of each shape.

9.



_____ square yards



_____ square inches



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Lesson 8.3 Problem Solving**SHOW YOUR WORK**

Solve each problem.

- 1.** Brandy has a curvy slide that is 5 feet long. How many inches long is the slide?

The slide is _____ inches long.

- 2.** Kristi was competing in the long jump. She jumped 9 feet. How many yards did she jump?

She jumped _____ yards.

- 3.** The new speedboat measures 25 yards long. How many feet does the speedboat measure?

The speedboat measures _____ feet.

- 4.** The longest snake is reported to be 36 feet long. How many yards long is the snake?

The snake is _____ yards long.

- 5.** The hot air balloon is about 4 miles away from its landing strip. How many yards away is the balloon?

The hot air balloon is _____ yards away.

Estimate your answer and then solve.

- 6.** David's flying disc soared in the wind for 782 feet. About how many yards away did the flying disc go?

Estimate _____

The flying disc traveled about _____ yards.

- 7.** The longest human chain was 10,560 feet long. About how many miles was the chain?

Estimate _____

The chain was about _____ miles long.

1.**2.****3.****4.****5.****6.****7.**



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Check What You Learned

Customary Measurement

Find the length of each line.

1. ^a _____ in. _____ ^b _____ in. _____

2. _____ in. _____ _____ in. _____

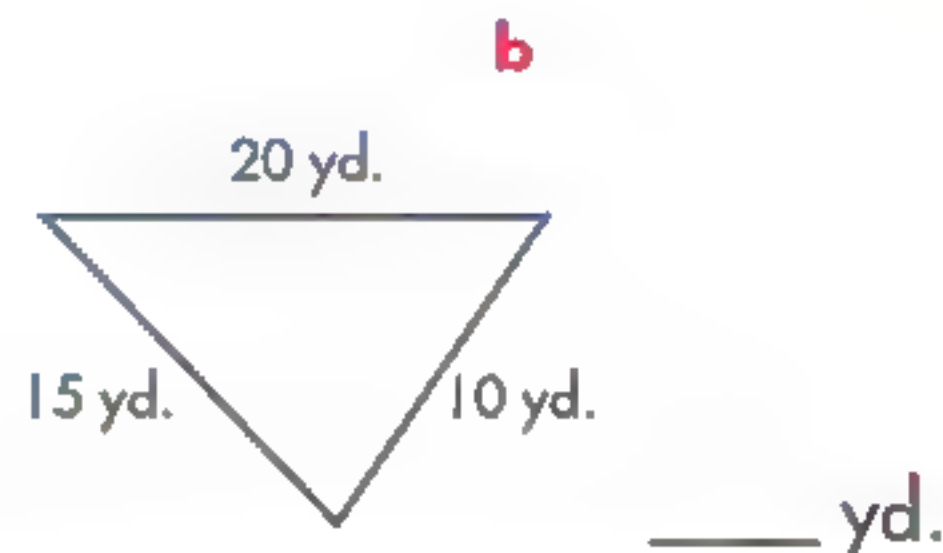
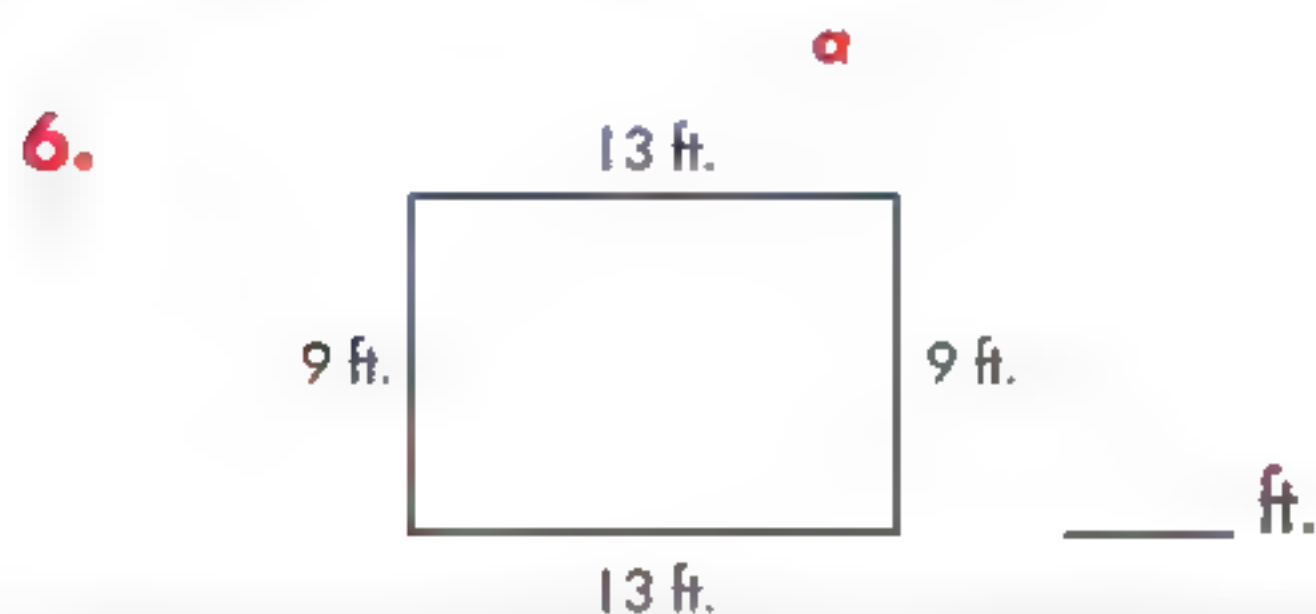
Complete the following.

3. ^a 4 ft. = _____ in. ^b 5 lb. = _____ oz. ^c 2 T. = _____ lb.

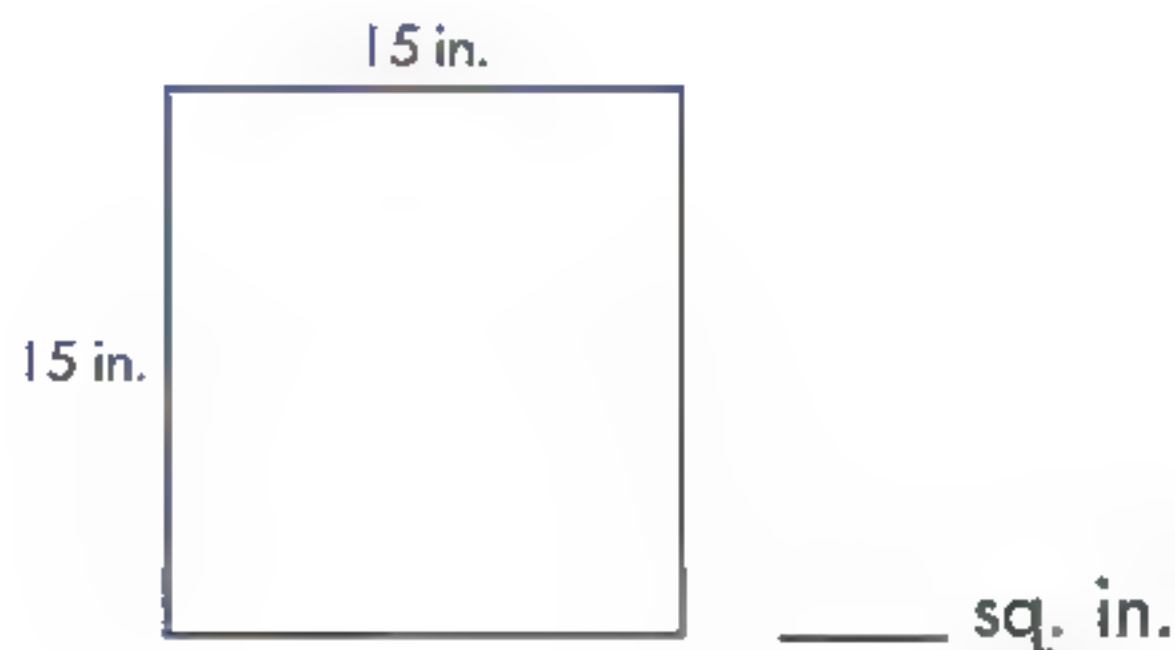
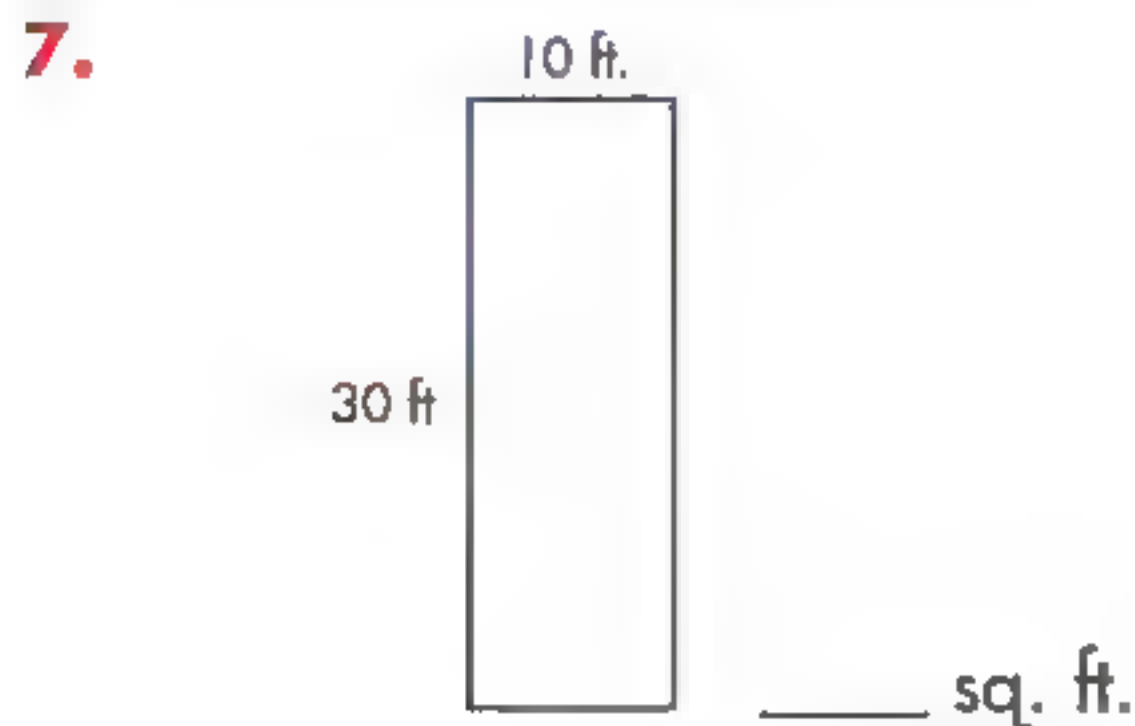
4. 4 qt. = _____ gal. 72 oz. = _____ c. 15 yd. = _____ ft.

5. 5,280 yd. = _____ mi. 17 pt. = _____ c. 80 oz. = _____ lb.

Find the perimeter of each shape.



Find the area of each shape.





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Lesson 9.1 Measuring in Centimeters



The straw is about 5 centimeters (cm) long.



The stamp is about 2 centimeters long.

Use a ruler and pencil to finish the shape. Find the length of the missing side in centimeters.

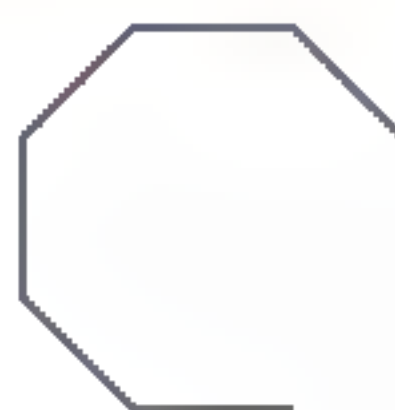
1.



_____ cm

a

b



_____ cm

2.



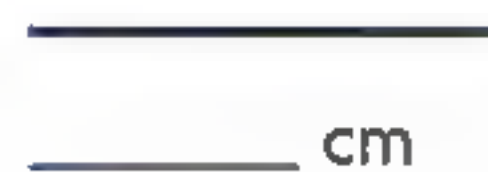
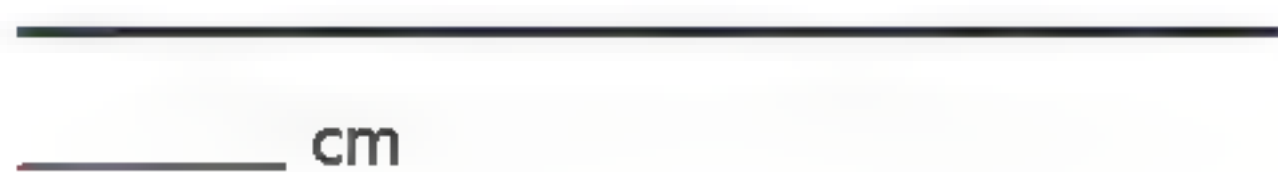
_____ cm



_____ cm

Find the length of each line segment to the nearest centimeter.

3.



4.



Use a ruler to draw a line segment for each measurement.

5. 2 centimeters

6. 6 centimeters

7. 12 centimeters

8. 7 centimeters



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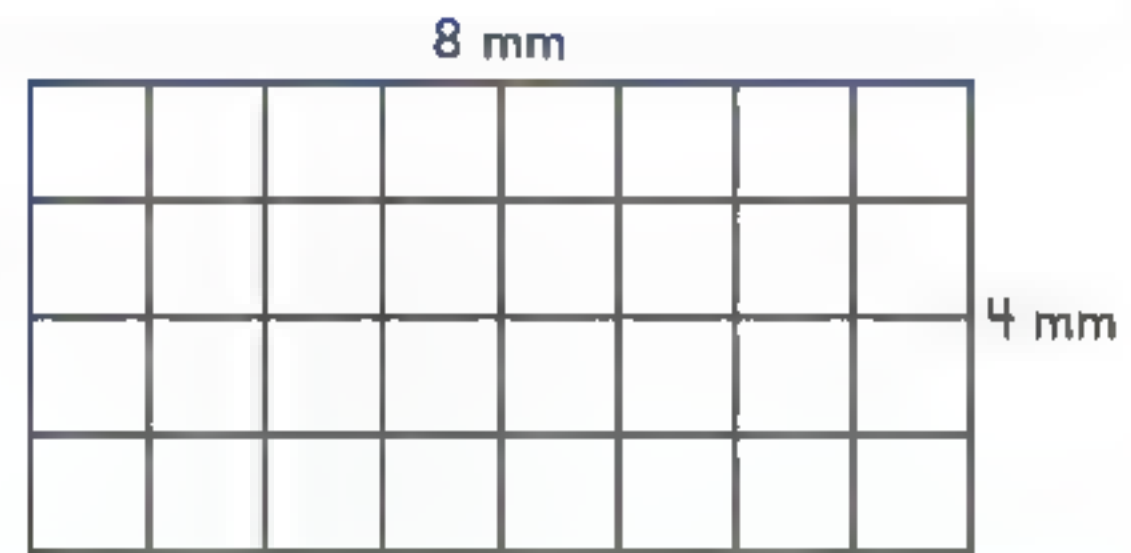
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Lesson 9.6 Measuring Area

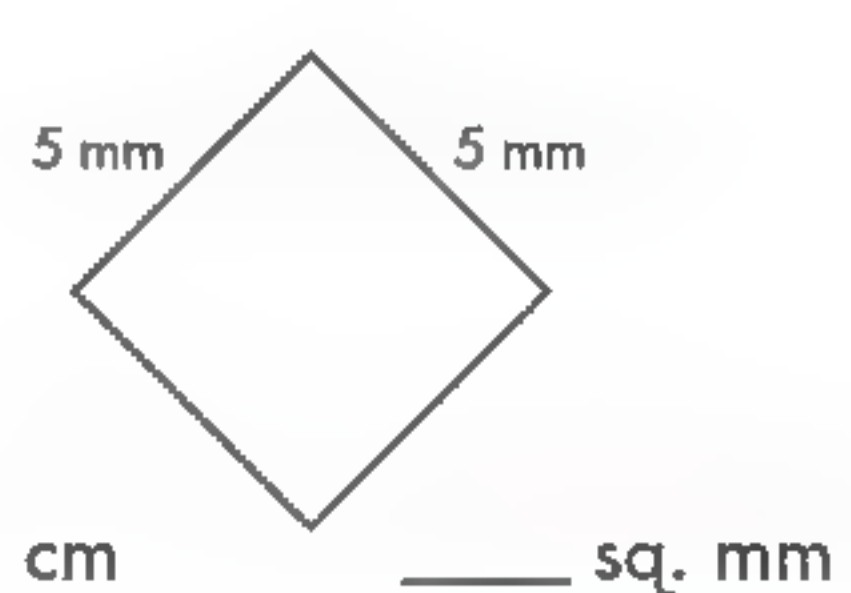
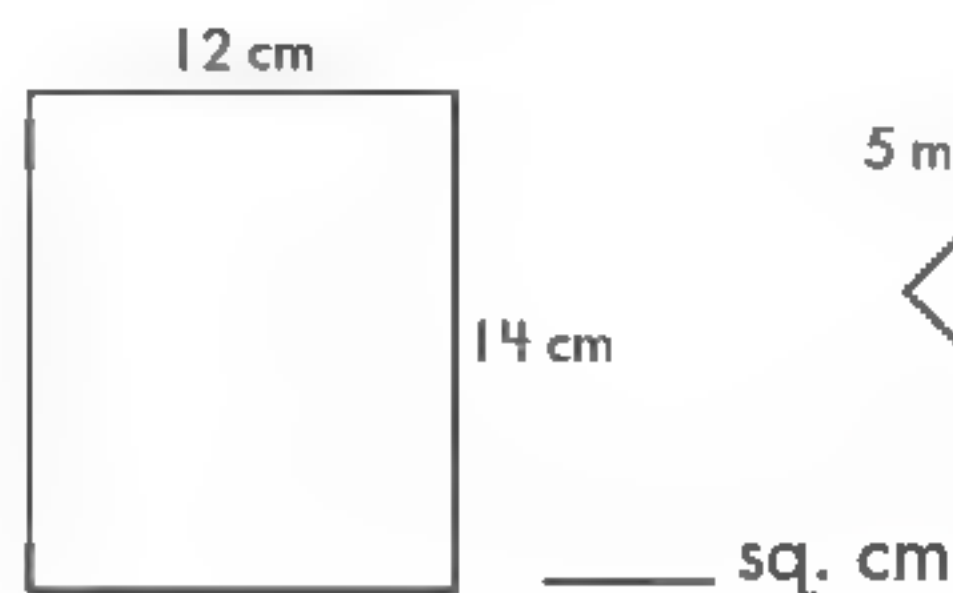
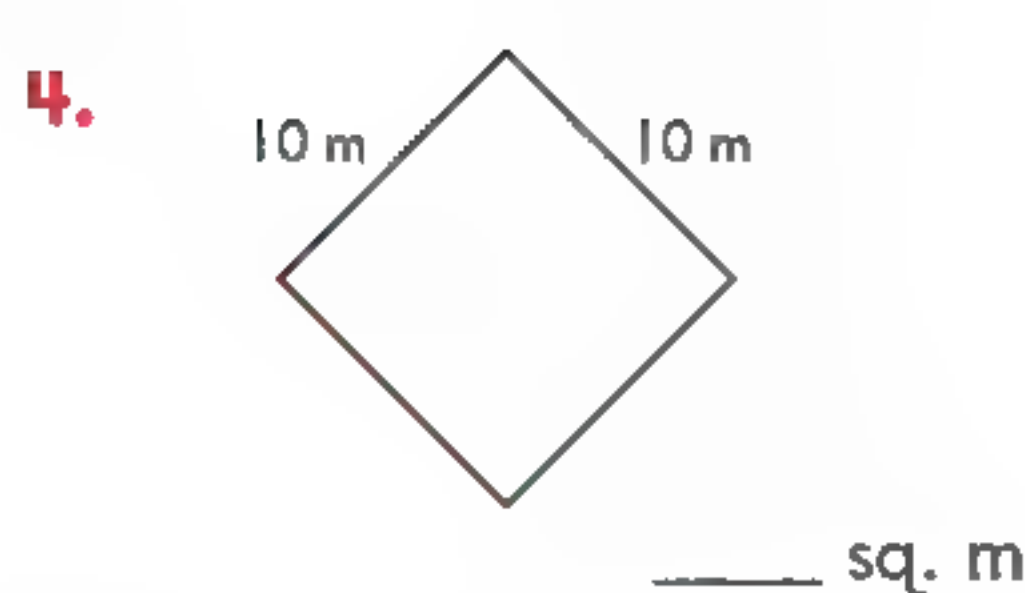
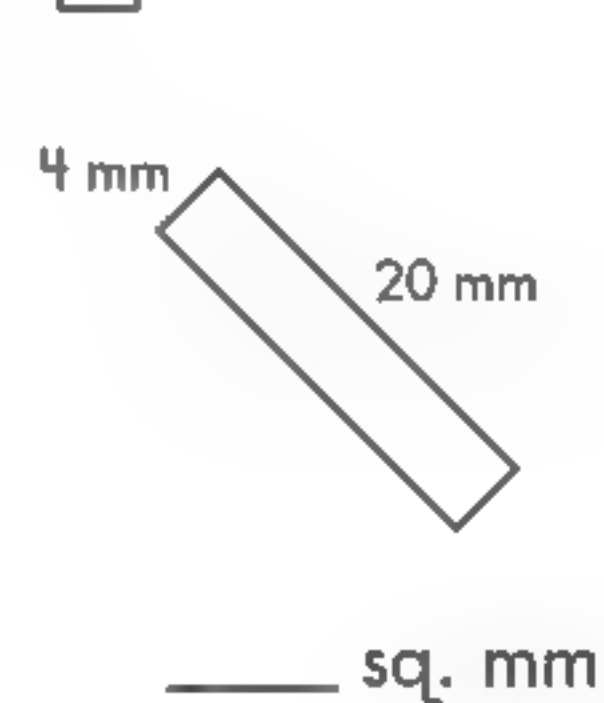
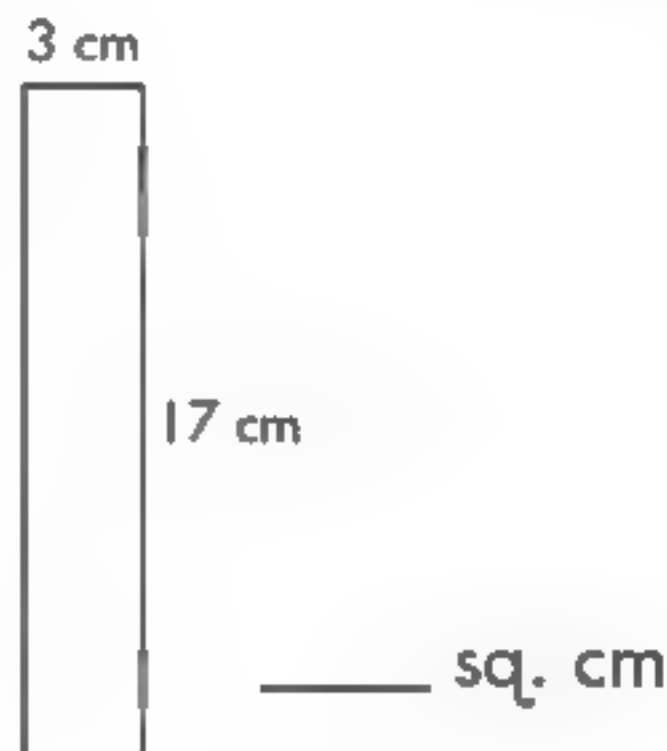
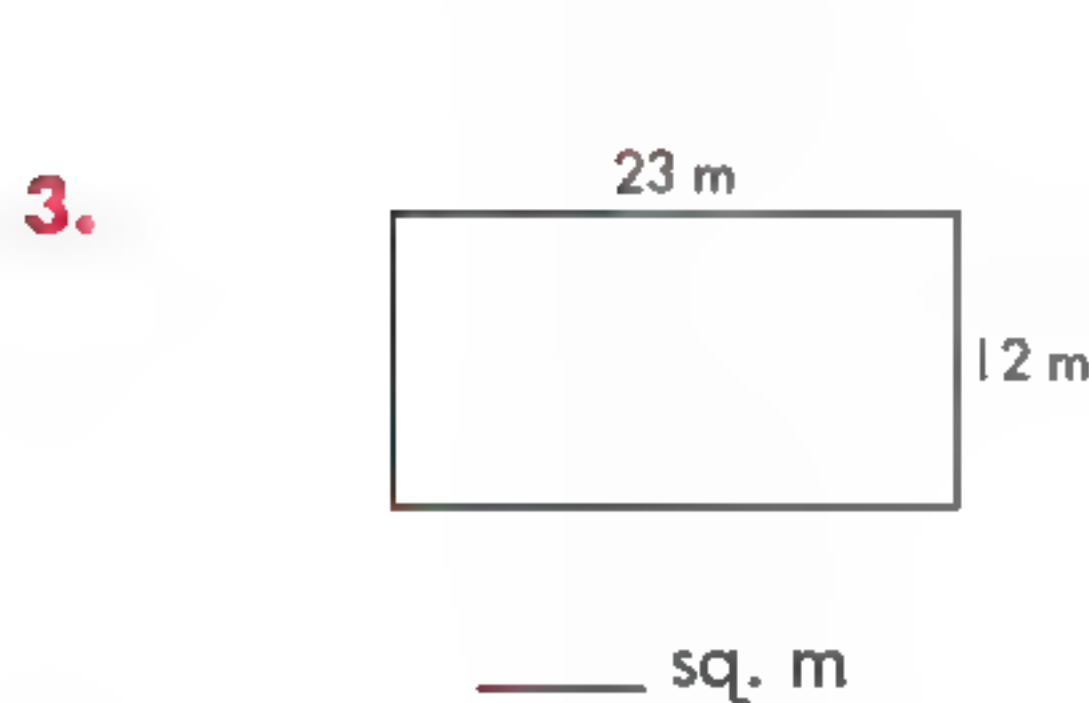
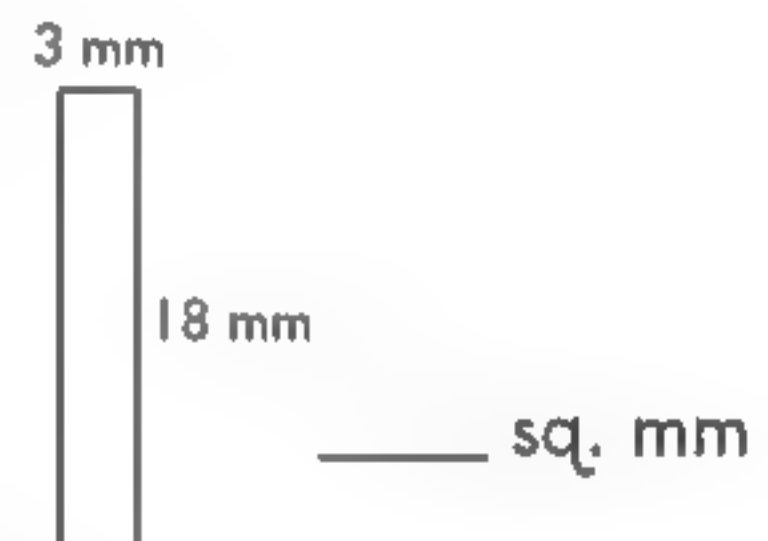
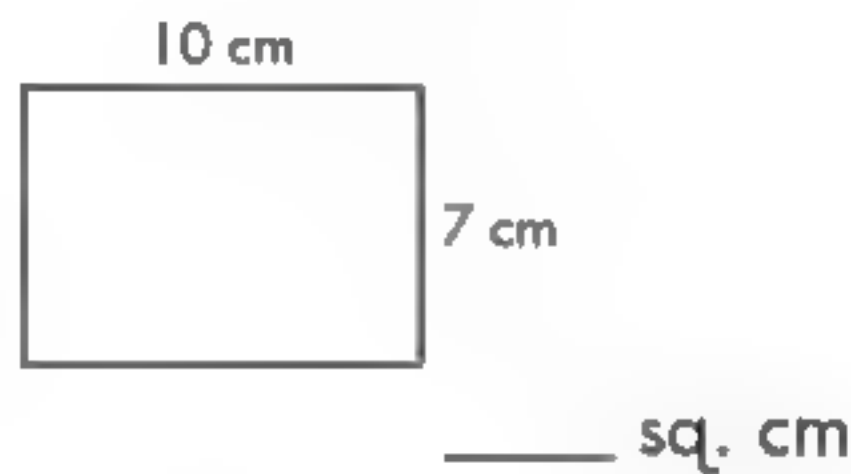
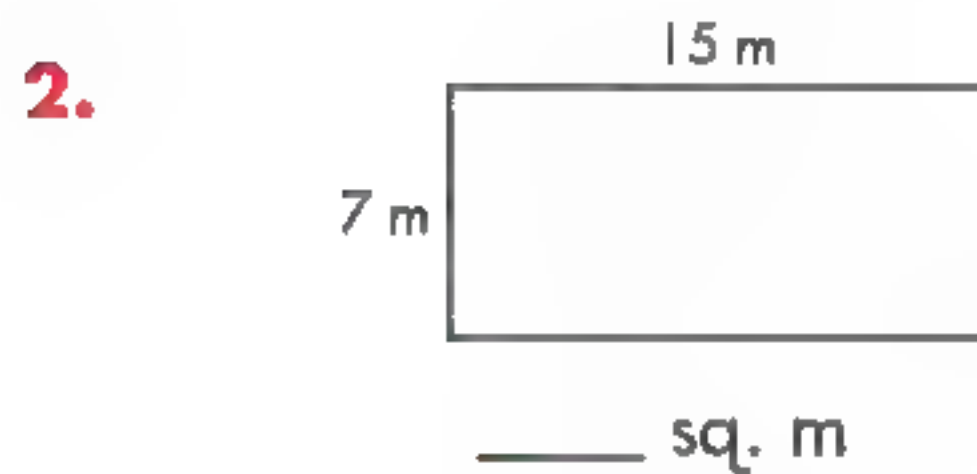
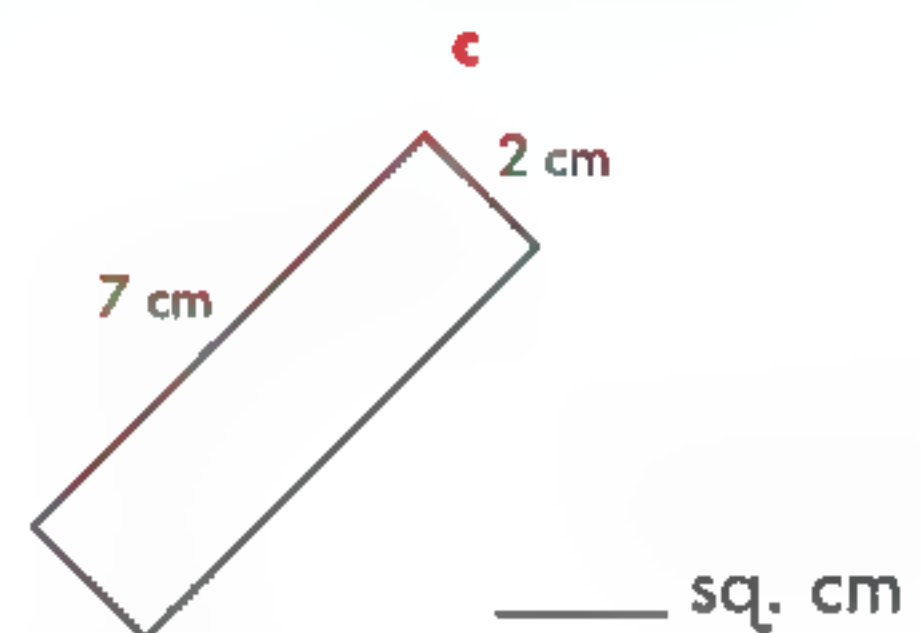
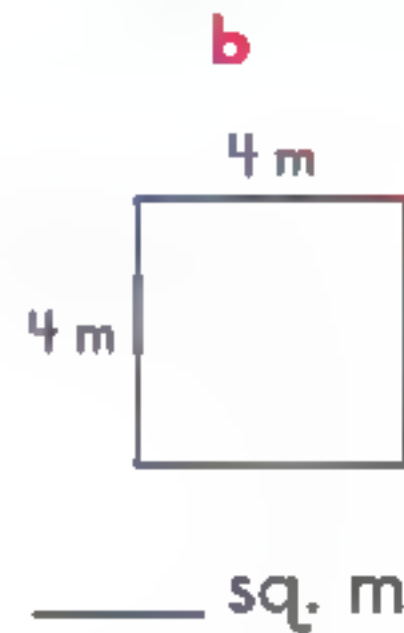
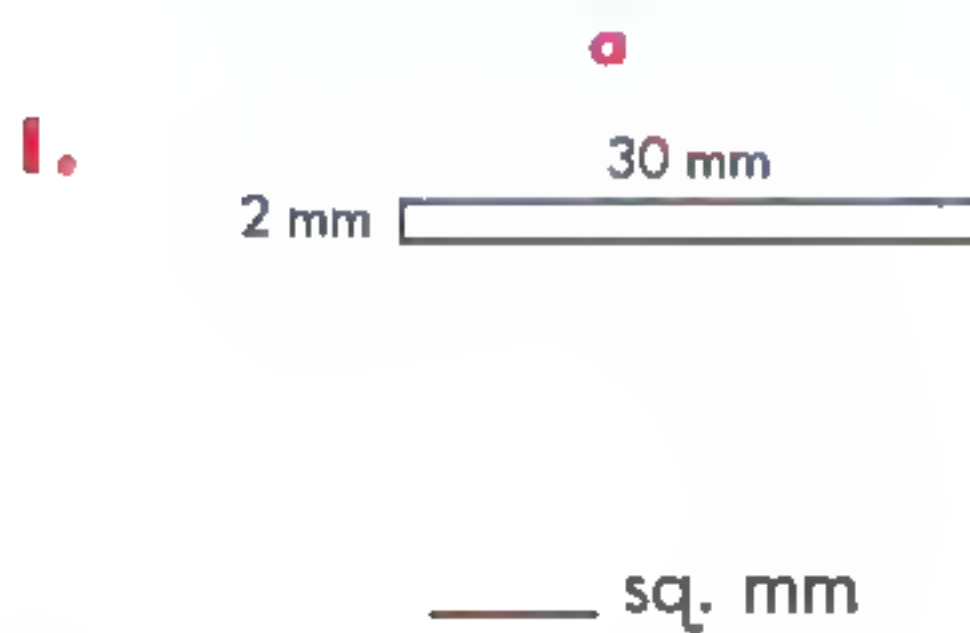
Area is the measurement of a surface.

To find the area of a square or a rectangle, multiply length by width.

The area of this rectangle is 32 square millimeters.



Find the area of each square or rectangle.





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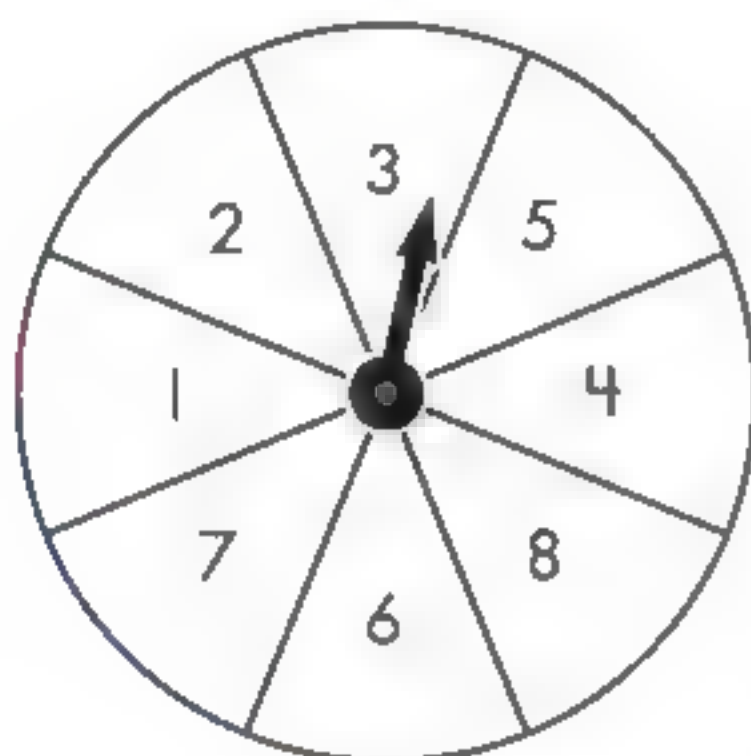


Check What You Know

Graphs and Probability

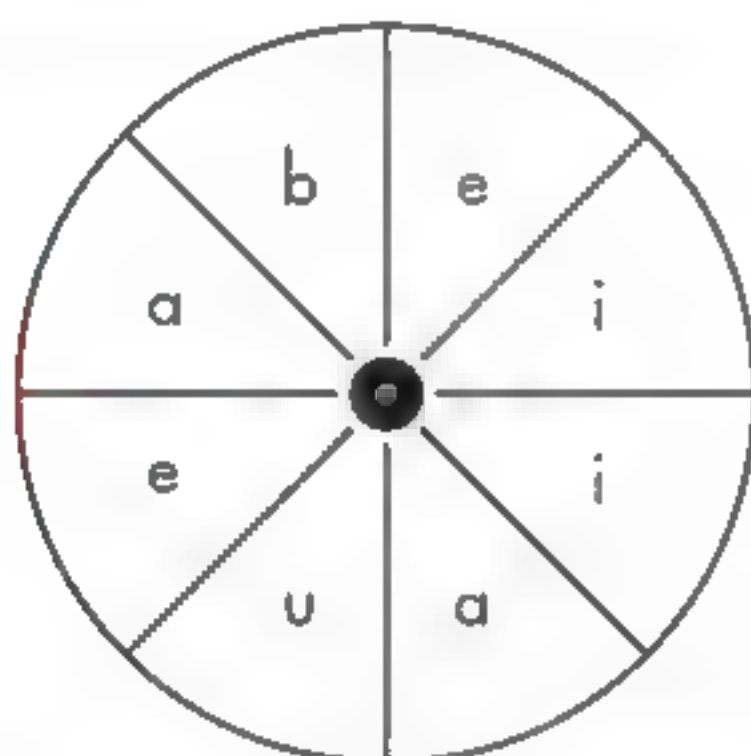
Find the probability of each event.

9. What is the probability of spinning an 8 on this wheel?



The probability of spinning an 8 is _____.

10. What is the probability of spinning an i on this wheel?



The probability of spinning an i is _____.

SHOW YOUR WORK

Solve the problem.

11. In a bag of 15 candy bars, there are 5 chocolate, 5 vanilla, and 5 strawberry candy bars. What is the probability of picking out a vanilla candy bar?

The probability of picking out a vanilla candy bar is _____.



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Lesson 10.3**Problem Solving****SHOW YOUR WORK**

Solve each problem.

1. In a raffle, there are 35 chances to win. If Charles buys 10 chances, what is the probability that Charles will win?

The probability is _____.

2. All members of the gym class put their names in a jar. The coach selected 4 teams of equal size for dodgeball. What is the probability that Dante will get onto his friend's team?

The probability is _____.

3. Heather and 14 friends rushed the table to get a slice of their favorite cheesecake. There are 3 slices left. Assume that all the girls have an equal chance of getting a piece of cake. What is the probability that Heather might get a slice of cheesecake? What is her chance of getting a slice: certain, likely, unlikely, or impossible?

The probability is _____.

Heather's chances are _____.

4. Isabella put 100 marbles in a jar and shook the jar. There are 4 colors of marbles. There are 25 of each color. What is the probability that Isabella will pick a marble out of the jar that is in her favorite color? Are her chances certain, likely, unlikely, or impossible?

The probability is _____.

Isabella's chances are _____.

1.

2.

3.

4.



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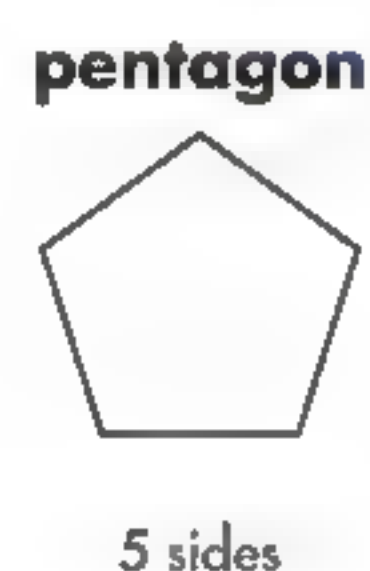
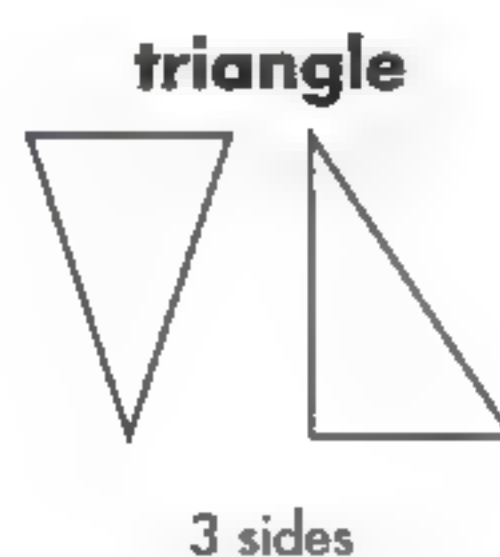
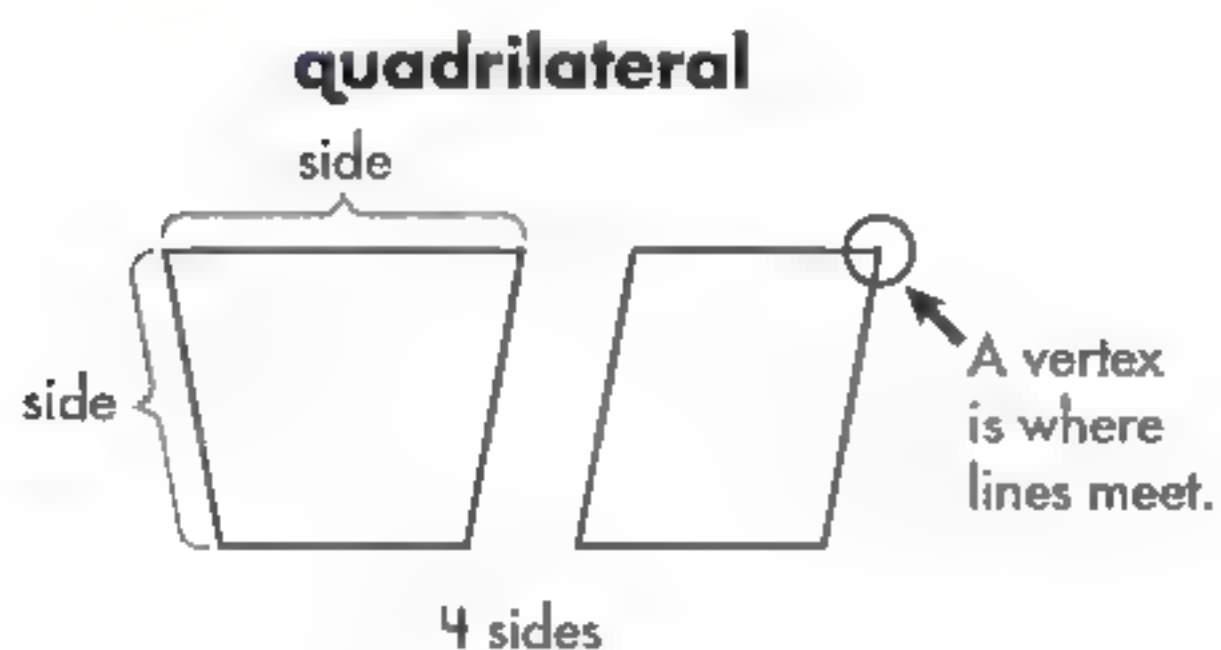
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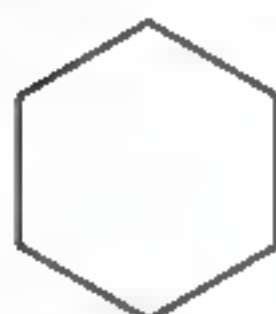
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Lesson 11.1 Plane Figures

Polygons are closed plane figures. They have 3 or more straight sides.



hexagon



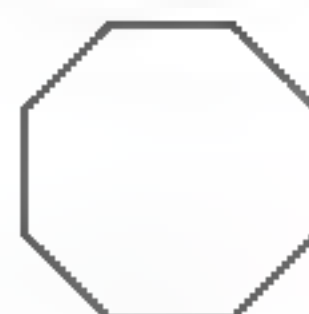
6 sides

heptagon



7 sides

octagon



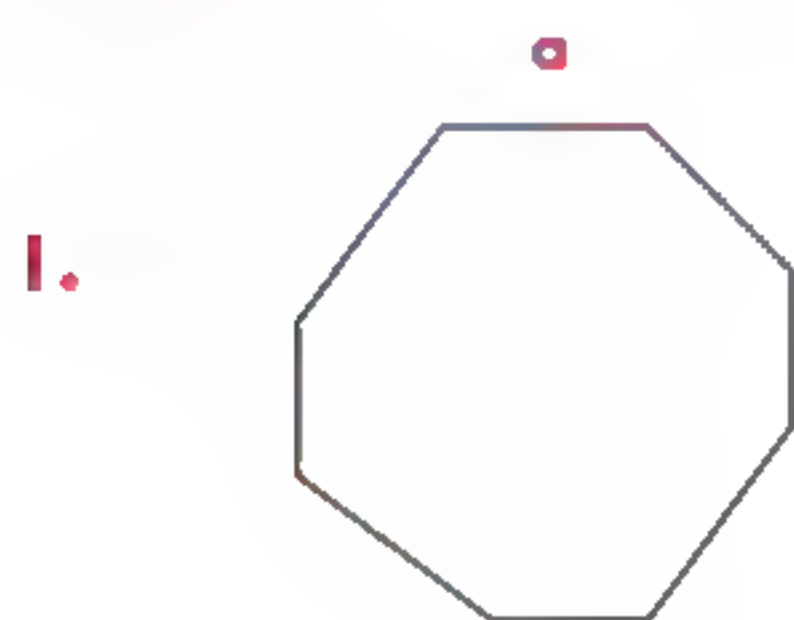
8 sides

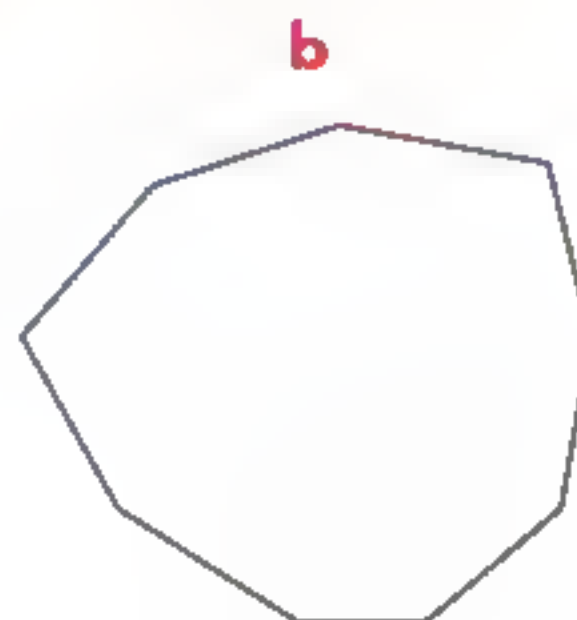
nonagon

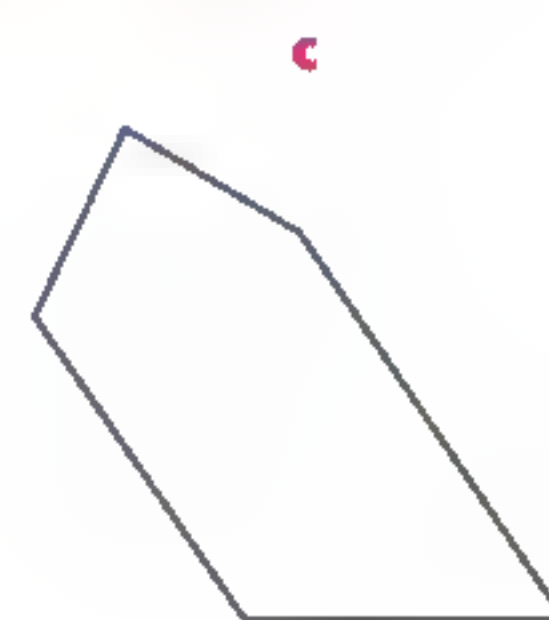


9 sides

Identify each plane figure as a triangle, quadrilateral, pentagon, hexagon, heptagon, octagon, or nonagon.

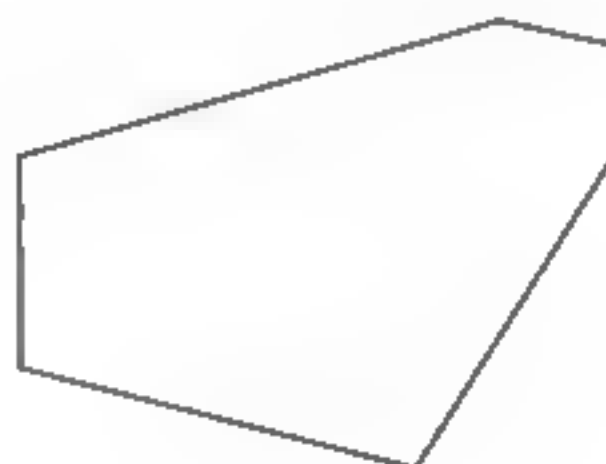


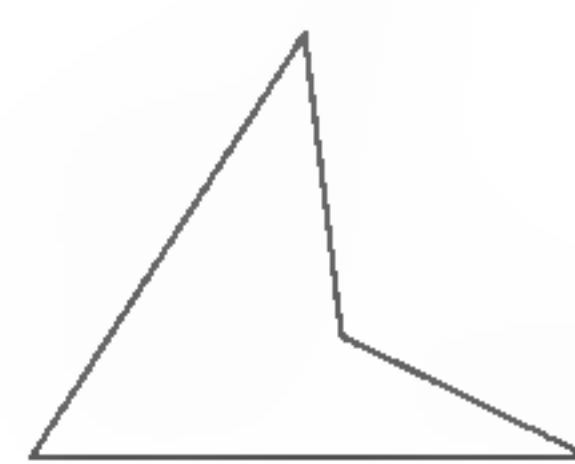




2.









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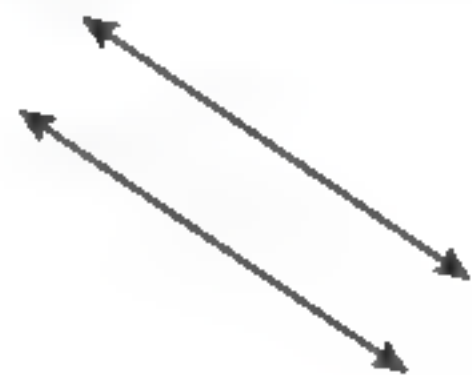
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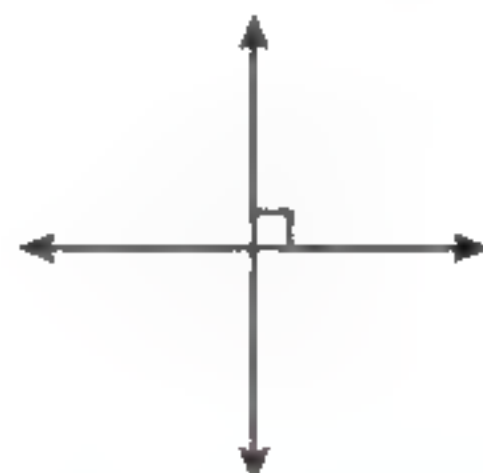
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Lesson 11.7**Parallel and Perpendicular Lines**

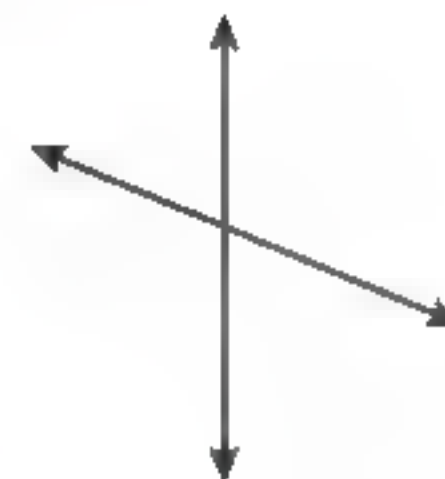
Parallel lines never intersect. They are always the same distance apart.



Perpendicular lines cross over each other, or intersect, to form right angles.



Intersecting lines cross over each other or intersect.



Identify each pair of lines as parallel, perpendicular, or intersecting.

1.

b

c

d

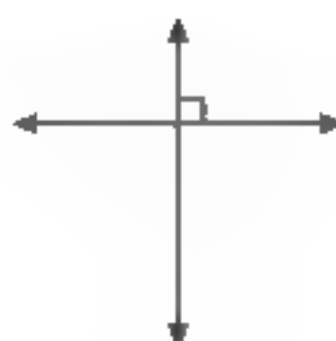
2.

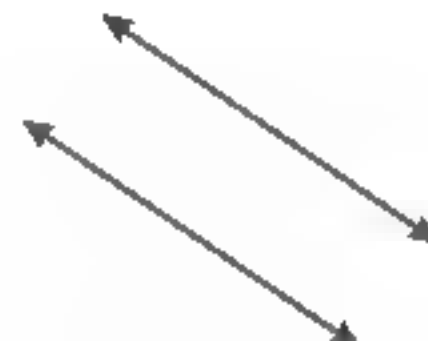


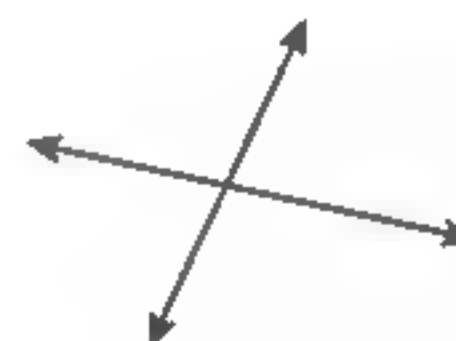


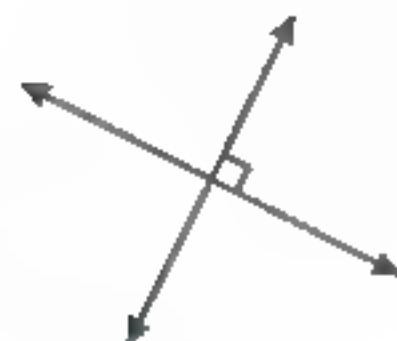


3.



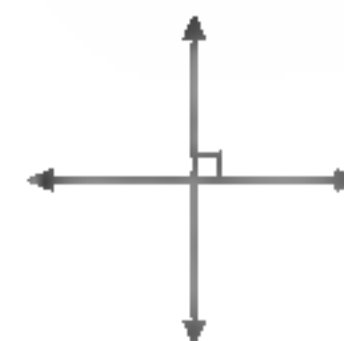




4.









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Check What You Know

Preparing for Algebra

Complete the following.

a

$$7. 6 + 5 = 5 + \square$$

b

$$15 + \square + 16 = 16 + 30 + 15$$

c

$$7 + 3 = 2 + \square$$

$$8. 25 \times 3 = 3 \times \square$$

$$2 \times 3 \times 7 = 7 \times 3 \times \square$$

$$125 \times 3 = 3 \times \square$$

a

$$9. 17 + (10 + \square) = (10 + 17) + 6$$

b

$$6 \times (5 \times 2) = (6 \times 2) \times \square$$

$$10. 235 + (10 + 375) = (375 + \square) + 10$$

$$14 \times (2 \times 5) = (14 \times 5) \times \square$$

SHOW YOUR WORK

Solve each problem. Write a number sentence to model each word problem.

11. Rosa needs 3 people to carry away the 75 books she has. Each person should carry the same number of books.

How many books should each person carry?

$$\square \div \square = \square$$

Each person should carry _____ books.

12. Chris's fish collection is growing. He started with 4 fish and now he has 96 fish. How many new fish does he have?

$$\square - \square = \square$$

He has _____ new fish.

11.

12.



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Lesson 12.5 Number Sentences

Multiply numbers in parentheses first.

$$\begin{array}{l}
 2 \times (3 \times 15) = (2 \times 3) \times 15 \\
 2 \times 45 = 6 \times 15 \\
 2 \times (3 \times 15) = (2 \times 3) \times 15
 \end{array}$$

Add numbers in parentheses first.

$$\begin{array}{l}
 (15 + 2) + 6 = 15 + (2 + 6) \\
 17 + 6 = 15 + 8 \\
 23 = 23 \\
 (15 + 2) + 6 = 15 + (2 + 6)
 \end{array}$$

Find the missing number. Show your work.

a

1. $(7 \times 5) \times 2 = (5 \times \boxed{}) \times 7$

2**b**

$(135 + 30) + 17 = (17 + 30) + \boxed{}$

135

2. $(190 + 70) + 30 = (30 + 70) + \boxed{}$ $(77 \times 5) \times 6 = (77 \times 6) \times \boxed{}$

3. $(25 + 23) + 17 = (17 + 23) + \boxed{}$ $(25 \times 10) \times 2 = (10 \times 2) \times \boxed{}$

4. $(1245 + 132) + 50 = (132 + 50) + \boxed{}$ $(130 \times 3) \times 5 = (3 \times 5) \times \boxed{}$

5. $(\boxed{} + 35) + 70 = (70 + 20) + 35$ $(93 \times \boxed{}) \times 4 = (4 \times 15) \times 93$

6. $(25 + 17) + 3 = (17 + 3) + \boxed{}$ $175 + (32 + 14) = (175 + 14) + \boxed{}$



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Final Test Chapters 1–12

Determine the place value of the underlined digit in each number.

15. 15.75 _____ 12,372 _____

16. 72.056 _____ 103,728 _____

Round each the number to the place of the underlined number.

17. 103,467 _____ 1,785,302 _____

18. 23,456 _____ 575 _____

Write $>$, $<$, or $=$ to compare the following.

19. 14.05 \bigcirc 14.95 12,700 \bigcirc 12,703 164,000 \bigcirc 146,000

20. 17.05 \bigcirc 17.05 0.008 \bigcirc 0.010 0.010 \bigcirc 0.100

Estimate each sum or difference.

| | | | | |
|--|---|--|---|--|
| a | b | c | d | e |
| 21. $\begin{array}{r} 5205 \\ -3800 \\ \hline \end{array}$ | $\begin{array}{r} 157321 \\ +58538 \\ \hline \end{array}$ | $\begin{array}{r} 3852 \\ +28 \\ \hline \end{array}$ | $\begin{array}{r} 72550 \\ -8549 \\ \hline \end{array}$ | $\begin{array}{r} 4983 \\ +3872 \\ \hline \end{array}$ |

Add or subtract.

| | | | |
|---|---------------------------------------|-------------------------------------|--|
| a | b | c | d |
| 22. $\frac{5}{6} + \frac{1}{6} =$ _____ | $\frac{7}{12} + \frac{3}{12} =$ _____ | $\frac{6}{8} - \frac{4}{8} =$ _____ | $\frac{11}{12} - \frac{7}{12} =$ _____ |

Find an equivalent fraction.

| | | | |
|--------------------------------------|-----------------------------------|-----------------------------------|----------------------------------|
| 23. $\frac{8}{32} = \frac{\quad}{4}$ | $\frac{1}{10} = \frac{\quad}{40}$ | $\frac{4}{100} = \frac{1}{\quad}$ | $\frac{7}{8} = \frac{49}{\quad}$ |
|--------------------------------------|-----------------------------------|-----------------------------------|----------------------------------|



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Scoring Record for Posttests, Mid-Test, and Final Test

| Chapter Posttest | Your Score | Performance | | | |
|------------------|-------------|-------------|-----------|---------|-------------------|
| | | Excellent | Very Good | Fair | Needs Improvement |
| 1 | ____ of 65 | 61–65 | 53–60 | 40–52 | 39 or fewer |
| 2 | ____ of 62 | 59–62 | 51–58 | 38–50 | 37 or fewer |
| 3 | ____ of 45 | 43–45 | 37–42 | 28–36 | 27 or fewer |
| 4 | ____ of 48 | 46–48 | 39–45 | 30–38 | 29 or fewer |
| 5 | ____ of 56 | 53–56 | 46–52 | 35–45 | 34 or fewer |
| 6 | ____ of 31 | 30–31 | 26–29 | 20–25 | 19 or fewer |
| 7 | ____ of 40 | 38–40 | 33–37 | 25–32 | 24 or fewer |
| 8 | ____ of 23 | 22–23 | 19–21 | 15–18 | 14 or fewer |
| 9 | ____ of 34 | 33–34 | 28–32 | 21–27 | 20 or fewer |
| 10 | ____ of 13 | 13 | 11–12 | 9–10 | 8 or fewer |
| 11 | ____ of 33 | 32–33 | 27–31 | 21–26 | 20 or fewer |
| 12 | ____ of 28 | 27–28 | 23–26 | 18–22 | 17 or fewer |
| Mid-Test | ____ of 182 | 170–182 | 147–169 | 110–146 | 109 or fewer |
| Final Test | ____ of 156 | 146–156 | 126–145 | 95–125 | 94 or fewer |

Record your test score in the Your Score column. See where your score falls in the Performance columns. Your score is based on the total number of required responses. If your score is fair or needs improvement, review the chapter material.



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Grade 4 Answers

| | | | | | |
|----|-------|-------|-------|--------|--------|
| 3. | 680 | 5,437 | 7,495 | 9,899 | 1,980 |
| 4. | 4,790 | 3,998 | 6,737 | 1,034 | 6,000 |
| 5. | 2,503 | 542 | 6,408 | 111 | 5,905 |
| 6. | 8,122 | 1,901 | 911 | 6,102 | 3,967 |
| 7. | 2,617 | 2,281 | 1,163 | 1,318 | 22,011 |
| 8. | 797 | 5241 | 320 | 69,216 | 9,393 |

Pretest, page 28

9. 3,994 10. 25,994 11. 1,398 12. 245
13. 448

Lesson 3.1, page 29

| | a | b | c | d | e | f |
|----|-------|-----|-------|-------|-------|-------|
| 1. | 909 | 750 | 589 | 259 | 788 | 993 |
| 2. | 561 | 408 | 720 | 780 | 598 | 1,155 |
| 3. | 983 | 396 | 672 | 810 | 757 | 900 |
| 4. | 980 | 431 | 858 | 1,270 | 712 | 309 |
| 5. | 889 | 666 | 543 | 387 | 1,300 | 950 |
| 6. | 1,014 | 457 | 940 | 584 | 857 | 263 |
| 7. | 1,193 | 918 | 1,010 | 397 | 1,099 | 357 |

Lesson 3.2, page 30

| | a | b | c | d | e | f |
|----|-------|-------|-------|-------|-------|-------|
| 1. | 911 | 609 | 1,133 | 231 | 4,796 | 399 |
| 2. | 4,498 | 311 | 290 | 3,267 | 103 | 1,964 |
| 3. | 1102 | 190 | 6,100 | 524 | 101 | 1,069 |
| 4. | 7,812 | 281 | 910 | 756 | 151 | 1,589 |
| 5. | 108 | 2,778 | 3,482 | 625 | 4,444 | 2,692 |
| 6. | 223 | 3,747 | 5,700 | 1,251 | 2613 | 5,086 |

Lesson 3.3, page 31

| | a | b | c | d | e |
|----|--------|-------|-------|--------|-------|
| 1. | 2,897 | 5,028 | 4,210 | 11,042 | 8,712 |
| 2. | 5,499 | 9,229 | 9,992 | 4,330 | 9,006 |
| 3. | 6,651 | 4,622 | 3,748 | 3,776 | 4,145 |
| 4. | 3,771 | 5,410 | 4,028 | 9,095 | 7,990 |
| 5. | 5,115 | 3,791 | 5,908 | 9,595 | 7,760 |
| 6. | 10,100 | 7,983 | 7,090 | 2,784 | 9,919 |
| 7. | 14,702 | 3,182 | 8,134 | 4,881 | 6,989 |

Lesson 3.4, page 32

1. 5,949 2. 7,077 3. 361 4. 131 5. 920
6. 3,158

Lesson 3.5, page 33

| | a | b | c | d | e |
|----|--------|--------|--------|--------|--------|
| 1. | 19,115 | 69,600 | 33,998 | 11,123 | 32,422 |
| 2. | 65,111 | 12,990 | 89,341 | 13,902 | 78,921 |
| 3. | 17 | 55,198 | 9,097 | 8,111 | 33,690 |
| 4. | 19,002 | 34,901 | 78,064 | 14,009 | 10,829 |
| 5. | 32,899 | 30,993 | 11,186 | 14,219 | 2,101 |
| 6. | 4,716 | 9170 | 15,000 | 7,653 | 7,842 |
| 7. | 52,108 | 78,999 | 11,090 | 27,680 | 12,576 |

Lesson 3.6, page 34

| | a | b | c | d | e |
|----|--------|--------|--------|--------|--------|
| 1. | 730 | 910 | 1,068 | 707 | 2,563 |
| 2. | 13,727 | 840 | 9,974 | 1,252 | 2,312 |
| 3. | 3,872 | 18,280 | 12,189 | 16,563 | 1,966 |
| 4. | 6,762 | 17,920 | 4,594 | 13,675 | 8,201 |
| 5. | 7,199 | 12,820 | 9,053 | 16,661 | 11,930 |

Lesson 3.7, page 35

| | a | b | c | d | e |
|----|--------|--------|--------|---------|--------|
| 1. | 11,557 | 24,275 | 9,099 | 102,380 | 3,432 |
| 2. | 29,850 | 12,598 | 22,881 | 10,018 | 16,516 |
| 3. | 8,339 | 48,390 | 6,889 | 50,341 | 91,001 |
| 4. | 12,065 | 11,062 | 78,186 | 14,807 | 40,305 |
| 5. | 3,860 | 38,900 | 13,810 | 65,237 | 11,099 |
| 6. | 17,509 | 8,217 | 51,510 | 4,039 | 30,583 |

Lesson 3.8, page 36

1. 8,517 2. 13,300 3. 66,640 4. 4,724
5. 40,851

Lesson 3.9, page 37

| | a | b | c | d | e |
|----|--------|--------|--------|--------|--------|
| 1. | 44,113 | 76,892 | 68,111 | 73,107 | 12,000 |
| 2. | 2,727 | 20,038 | 99,002 | 4,559 | 43,663 |
| 3. | 57,564 | 47,408 | 78,012 | 46,619 | 8,973 |
| 4. | 658 | 3,476 | 1,730 | 1,783 | 9,041 |
| 5. | 3,556 | 6,201 | 1,085 | 17,191 | 786 |
| 6. | 71,359 | 1,9788 | 1,765 | 9,791 | 2,190 |
| 7. | 8,421 | 1,680 | 49,106 | 2,096 | 7,324 |
| 8. | 57,829 | 10,038 | 14,011 | 1,818 | 6,884 |

Lesson 3.10, page 38

| | a | b | c | d | e |
|----|--------|--------|---------|--------|--------|
| 1. | 7,263 | 2,470 | 8,675 | 15,865 | 3,507 |
| 2. | 1,793 | 19,330 | 111,175 | 10,086 | 208 |
| 3. | 3,988 | 42,050 | 38,966 | 101 | 884 |
| 4. | 6,781 | 49,059 | 1,009 | 250 | 679 |
| 5. | 5,163 | 57,806 | 791 | 20,470 | 2,567 |
| 6. | 639 | 25,829 | 11,819 | 11,590 | 7,700 |
| 7. | 2,075 | 42,601 | 4,731 | 10,389 | 83,546 |
| 8. | 10,235 | 18,354 | 6,566 | 7,725 | 13,906 |

Lesson 3.11, page 39

| | a | b | c | d | e |
|----|--------|---------|--------|--------|--------|
| 1. | 61,000 | 14,000 | 1,800 | 80,000 | 40,000 |
| 2. | 13,000 | 40,000 | 69,000 | 1,500 | 6,200 |
| 3. | 7,000 | 110,000 | 5,000 | 80,000 | 59,000 |
| 4. | 20,000 | 6,400 | 1,000 | 8,000 | 40,000 |
| 5. | 0 | 3,600 | 48,000 | 1,000 | 20,000 |
| 6. | 1,300 | 25,600 | 13,400 | 60,000 | 100 |

Lesson 3.11, page 40

1. 110,000 2. 3,000 3. 14,000 4. 4,700
5. 4,000 6. 6,000

Grade 4 Answers

Posttest, page 41

| | a | b | c | d | e |
|----|--------|--------|--------|---------|--------|
| 1. | 99,013 | 62,882 | 1,094 | 2,600 | 8,222 |
| 2. | 26,348 | 51,609 | 2,943 | 13,345 | 60,012 |
| 3. | 991 | 10,050 | 4,232 | 111,867 | 19,991 |
| 4. | 60,835 | 1,059 | 4,024 | 6,899 | 28,606 |
| 5. | 57,818 | 24,023 | 659 | 9,009 | 18,909 |
| 6. | 576 | 337 | 252 | 42,753 | 21,431 |
| 7. | 56,000 | 6,000 | 88,000 | 8,100 | 80,000 |
| 8. | 4500 | 10,000 | 79,000 | 0 | 6,000 |

Posttest, page 42

9. 1,028 10. 1,470 11. 3,185 12. 700
13. 11,800

Chapter 4

Pretest, page 43

| | a | b | c | d | e | f |
|----|--------|-------|--------|--------|--------|--------|
| 1. | 56 | 75 | 3,926 | 255 | 90 | 144 |
| 2. | 14,805 | 81 | 4,732 | 1,056 | 2,821 | 744 |
| 3. | 24,200 | 1,659 | 2,200 | 32 | 2,691 | 392 |
| 4. | 17,250 | 100 | 1,588 | 18,75 | 121 | 2,916 |
| 5. | 41,584 | 1,936 | 42 | 4,62 | 5,694 | 12,832 |
| 6. | 18,312 | 2,310 | 64 | 4,578 | 29,046 | 15,000 |
| 7. | 3,060 | 4,352 | 25,839 | 28,512 | 535 | 247 |
| 8. | 7,416 | 3,740 | 5,340 | 360 | 4,366 | 45,000 |

Pretest, page 44

9. 250 10. 198 11. 8,000 12. 2,145 13. 50

Lesson 4.1, page 45

| | a | b | c | d | e | f | g | h |
|----|----|----|----|----|----|----|----|----|
| 1. | 9 | 56 | 18 | 35 | 36 | 36 | 7 | 0 |
| 2. | 81 | 12 | 15 | 16 | 49 | 27 | 4 | 9 |
| 3. | 40 | 24 | 16 | 63 | 32 | 21 | 25 | 72 |
| 4. | 1 | 45 | 48 | 42 | 54 | 56 | 21 | 28 |
| 5. | 18 | 0 | 36 | 30 | 14 | 9 | 27 | 48 |
| 6. | 20 | 8 | 10 | 64 | 18 | 42 | 72 | 0 |

Lesson 4.2, page 46

| | a | b | c | d | e | f |
|----|----|----|----|----|----|----|
| 1. | 46 | 71 | 48 | 66 | 70 | 48 |
| 2. | 88 | 86 | 90 | 88 | 36 | 28 |
| 3. | 99 | 75 | 66 | 90 | 40 | 84 |
| 4. | 77 | 20 | 0 | 39 | 60 | 62 |
| 5. | 20 | 82 | 26 | 80 | 60 | 55 |
| 6. | 30 | 77 | 25 | 0 | 66 | 10 |
| 7. | 0 | 50 | 93 | 36 | 80 | 70 |

Lesson 4.3, page 47

| | a | b | c | d | e | f |
|----|-----|----|-----|-----|-----|-----|
| 1. | 292 | 50 | 108 | 260 | 92 | 210 |
| 2. | 38 | 52 | 204 | 270 | 376 | 132 |

| | | | | | | |
|----|-----|-----|-----|-----|-----|-----|
| 3. | 288 | 384 | 156 | 136 | 85 | 110 |
| 4. | 198 | 225 | 330 | 171 | 342 | 222 |
| 5. | 165 | 512 | 415 | 343 | 450 | 516 |
| 6. | 360 | 51 | 432 | 225 | 540 | 480 |
| 7. | 279 | 308 | 246 | 288 | 280 | 158 |

Lesson 4.4, page 48

1. 432 2. 141 3. 368 4. 188 5. 168 6. 115

Lesson 4.5, page 49

| | a | b | c | d | e | f |
|----|-------|-------|-------|-------|-------|-------|
| 1. | 354 | 1,220 | 1,120 | 456 | 1,400 | 685 |
| 2. | 981 | 474 | 1,410 | 1,278 | 1,740 | 1,161 |
| 3. | 1,675 | 1,330 | 3,368 | 1,809 | 861 | 972 |
| 4. | 2,025 | 944 | 1,206 | 2,988 | 4,900 | 796 |
| 5. | 1,956 | 568 | 5,632 | 1,351 | 738 | 1,064 |
| 6. | 4,224 | 2,253 | 1,400 | 1,110 | 1,818 | 5,110 |

Lesson 4.6, page 50

| | a | b | c | d | e | f |
|----|-----|-----|-----|-----|-----|-----|
| 1. | 726 | 495 | 800 | 713 | 156 | 930 |
| 2. | 861 | 640 | 400 | 651 | 900 | 140 |
| 3. | 968 | 280 | 480 | 900 | 169 | 330 |
| 4. | 770 | 132 | 810 | 288 | 880 | 961 |

Lesson 4.7, page 51

| | a | b | c | d | e | f |
|----|-------|-------|-------|-------|-------|-------|
| 1. | 418 | 1,312 | 1,296 | 675 | 960 | 1,694 |
| 2. | 1,512 | 2,496 | 700 | 2,310 | 957 | 6,300 |
| 3. | 1,311 | 324 | 2,079 | 1,105 | 1,936 | 1,800 |
| 4. | 851 | 3,458 | 1,892 | 221 | 1,496 | 2,090 |

Lesson 4.8, page 52

| | a | b | c | d | e | f |
|----|--------|--------|--------|--------|--------|--------|
| 1. | 9,450 | 22,134 | 6,027 | 16,940 | 6,270 | 13,821 |
| 2. | 4,480 | 4508 | 61,916 | 26,016 | 24,160 | 6,750 |
| 3. | 47,771 | 37,800 | 14,256 | 29,754 | 59,711 | 31,836 |
| 4. | 9,125 | 21,886 | 14,784 | 9,708 | 44,895 | 38,014 |

Lesson 4.9, page 53

| | a | b | c | d | e | f |
|----|-------|-------|-------|-------|-------|-------|
| 1. | 729 | 92 | 441 | 66 | 702 | 282 |
| 2. | 720 | 180 | 156 | 88 | 365 | 696 |
| 3. | 1,395 | 609 | 4,120 | 450 | 6,412 | 4,266 |
| 4. | 1,032 | 1,236 | 990 | 4,218 | 8,100 | 5,312 |
| 5. | 2,736 | 1,127 | 544 | 2,700 | 588 | 2,176 |
| 6. | 486 | 1,760 | 3,311 | 1,560 | 323 | 1,296 |

Lesson 4.10, page 54

1. 96 2. 396 3. 750 4. 825 5. 120 6. 80

PostTest, page 55

- 1a. 288 1b. 192 1c. 678 1d. 272
1e. 1,350 1f. 666 1g. 186
2a. 484 2b. 512 2c. 217 2d. 6,300

Grade 4 Answers

- 2e. 63 2f. 4844 2g. 720
 3a. 56 3b. 728 3c. 66 3d. 4347
 3e. 5400 3f. 316 3g. 4501
 4a. 1486 4b. 4390 4c. 2691 4d. 5658
 4e. 48 4f. 1800 4g. 22200
 5a. 1722 5b. 3732 5c. 1296 5d. 132
 5e. 21294 5f. 2565 5g. 6001
 6a. 7272 6b. 24366 6c. 6666 6d. 2548
 6e. 1204 6f. 6110 6g. 22165

Posttest, page 56

7. 460 8. 252 9. 14880 10. 750 11. 805
 12. 180

Chapter 5

Pretest, page 57

| | a | b | c | d | e |
|-----|---|---|---|---|---|
| 1. | 5 | 2 | 3 | 2 | 3 |
| 2. | 6 | 6 | 9 | 8 | 5 |
| 3. | 9 | 4 | 8 | 5 | 9 |
| 4. | 2 | 2 | 4 | 3 | 6 |
| 5. | 3 | 2 | 6 | 4 | 2 |
| 6. | 6 | 8 | 4 | 8 | 3 |
| 7. | 9 | 8 | 5 | 1 | 0 |
| 8. | 2 | 4 | 9 | 2 | 6 |
| 9. | 9 | 9 | 2 | 1 | 4 |
| 10. | 5 | 2 | 8 | 2 | 3 |

Pretest, page 58

11. 6 12. 8 13. 4 14. 6 15. 6 16. 2

Lesson 5.1, page 59

| | a | b | c | d | e | f |
|----|---|---|---|---|---|---|
| 1. | 2 | 4 | 9 | 6 | 5 | 2 |
| 2. | 9 | 6 | 9 | 4 | 4 | 2 |
| 3. | 9 | 5 | 6 | 8 | 4 | 5 |
| 4. | 8 | 6 | 5 | 2 | 9 | 8 |
| 5. | 6 | 6 | 8 | 5 | 3 | 3 |
| 6. | 7 | 1 | 3 | 2 | 0 | 2 |
| | a | b | c | d | e | f |
| 7. | 5 | 4 | 3 | 2 | 9 | 8 |

Lesson 5.2, page 60

| | a | b | c | d | e | f |
|----|---|---|---|---|---|---|
| 1. | 2 | 9 | 6 | 8 | 9 | 2 |
| 2. | 9 | 6 | 8 | 8 | 9 | 8 |
| 3. | 8 | 6 | 1 | 8 | 0 | 9 |
| 4. | 5 | 2 | 3 | 4 | 2 | 9 |
| 5. | 4 | 5 | 5 | 6 | 3 | 4 |
| 6. | 1 | 3 | 6 | 2 | 2 | 5 |
| | a | b | c | d | e | f |
| 7. | 2 | 4 | 3 | 2 | 9 | 8 |

Lesson 5.3, page 61

| | a | b | c | d | e | f |
|----|---|---|---|---|---|---|
| 1. | 8 | 5 | 3 | 8 | 4 | 6 |
| 2. | 3 | 7 | 2 | 6 | 9 | 8 |
| 3. | 2 | 8 | 2 | 6 | 4 | 4 |
| 4. | 5 | 6 | 3 | 5 | 2 | 0 |
| 5. | 1 | 5 | 6 | 2 | 9 | 2 |
| | a | b | c | d | e | f |
| 6. | 2 | 8 | 9 | 6 | 4 | 6 |
| 7. | 9 | 6 | 6 | 6 | 4 | 6 |

Lesson 5.4, page 62

| | a | b | c | d | e |
|----|---|---|---|---|---|
| 1. | 2 | 4 | 9 | 2 | 6 |
| 2. | 8 | 5 | 9 | 6 | 9 |
| 3. | 6 | 7 | 4 | 6 | 9 |
| 4. | 9 | 4 | 7 | 8 | 9 |
| 5. | 8 | 3 | 4 | 2 | 5 |
| 6. | 8 | 2 | 9 | 0 | 4 |

Lesson 5.5, page 63

1. 8 2. 5 3. 9 4. 4 5. 8 6. 2

Lesson 5.6, page 64

1. 8 2. 8 3. 5 4. 9 5. 9 6. 2

Posttest, page 65

| | a | b | c | d | e |
|-----|---|---|---|---|---|
| 1. | 6 | 3 | 1 | 8 | 8 |
| 2. | 8 | 6 | 2 | 3 | 7 |
| 3. | 5 | 8 | 6 | 2 | 4 |
| 4. | 2 | 1 | 3 | 9 | 6 |
| 5. | 4 | 5 | 4 | 2 | 6 |
| 6. | 0 | 8 | 9 | 2 | 2 |
| 7. | 4 | 6 | 8 | 8 | 6 |
| 8. | 5 | 9 | 6 | 2 | 2 |
| 9. | 5 | 2 | 2 | 3 | 8 |
| 10. | 6 | 1 | 4 | 9 | 4 |

Posttest, page 66

11. 8 12. 3 13. 8 14. 9 15. 7 16. 9

Chapter 6

Pretest, page 67

| | a | b | c | d | e |
|----|------|-------|-----|------|------|
| 1. | 21 | 7r1 | 21 | 21 | 60 |
| 2. | 30r2 | 173r2 | 6r7 | 10 | 24r2 |
| 3. | 9r6 | 11 | 25 | 87r1 | 300 |
| 4. | 15 | 21 | 130 | 9r6 | 22r2 |
| 5. | 181 | 20r1 | 8r6 | 3r1 | 45 |

Pretest, page 68

6. 2; 4 7. 78 8. 3 9. 15 10. 12 11. 47; 6

Grade 4 Answers

Lesson 6.1, page 69

| | a | b | c | d | e |
|----|-----|-----|-----|-----|-----|
| 1. | 5r1 | 8r2 | 7r3 | 9r1 | 5r5 |
| 2. | 8r2 | 5r2 | 6r1 | 7r1 | 6r4 |
| 3. | 3r3 | 8r1 | 3r1 | 9r1 | 8r1 |
| 4. | 2r4 | 6r1 | 6r1 | 4r1 | 9r2 |

Lesson 6.1, page 70

| | a | b | c | d | e |
|----|------|------|------|------|------|
| 1. | 18 | 15r1 | 11r2 | 24 | 13r2 |
| 2. | 17r1 | 32 | 13 | 12 | 25 |
| 3. | 15r3 | 12 | 11r1 | 12r5 | 11 |
| 4. | 22 | 28 | 38r1 | 19r2 | 11r5 |

Lesson 6.2, page 71

| | a | b | c | d | e |
|----|------|------|------|------|------|
| 1. | 31r1 | 15 | 10r7 | 12r4 | 11r1 |
| 2. | 24 | 12 | 13 | 16r1 | 19r2 |
| 3. | 37r1 | 8r2 | 15r3 | 11r1 | 34r1 |
| 4. | 21r1 | 12r3 | 19 | 11r3 | 19r2 |
| 5. | 14r3 | 11r5 | 24r1 | 14r1 | 12r1 |

Lesson 6.2, page 72

6. 8 7. 38 8. 2 9. 7 10. 23 ; 3

Lesson 6.3, page 73

| | a | b | c | d | e |
|----|------|------|------|------|------|
| 1. | 90 | 93 | 41r3 | 43r1 | 75 |
| 2. | 92 | 46r1 | 62 | 98r8 | 21 |
| 3. | 86r6 | 45 | 90r3 | 73 | 36r2 |

Lesson 6.3, page 74

| | a | b | c | d | e |
|----|-------|-------|-------|-------|-------|
| 1. | 109r1 | 190r2 | 157r1 | 114r3 | 124r2 |
| 2. | 311 | 114 | 115r1 | 225r1 | 150 |
| 3. | 104 | 256 | 101r6 | 212 | 127 |
| 4. | 417r1 | 176 | 109r3 | 126r2 | 142 |

Lesson 6.4, page 75

| | a | b | c | d | e |
|----|-------|-------|-------|-------|-----|
| 1. | 128r5 | 449 | 141r2 | 130r1 | 324 |
| 2. | 158r1 | 183 | 109r8 | 128r1 | 197 |
| 3. | 105r4 | 112r1 | 225r1 | 174 | 155 |
| 4. | 261r1 | 157r3 | 160r1 | 111r3 | 305 |
| 5. | 108 | 190r6 | 217 | 325 | 120 |

Lesson 6.4, page 76

6. 15 7. 168 ; 3 8. 58 ; 7 9. 130 ; 3 10. 146

Posttest, page 77

| | a | b | c | d | e |
|----|------|-------|-------|------|-------|
| 1. | 16 | 107 | 16r1 | 12r1 | 89 |
| 2. | 30r1 | 133 | 111r2 | 106 | 111r1 |
| 3. | 48 | 29 | 11r5 | 14 | 4r3 |
| 4. | 9r3 | 9r1 | 5r3 | 9r8 | 22 |
| 5. | 201 | 183r2 | 127 | 5r2 | 24 |

Posttest, page 78

6. 22 ; 4 7. 4 8. 123 9. 65 10. 68 11. 17

Mid-Test

Page 79

| | a | b | c | d | e |
|-----|-----|-----|-----|-----|-----|
| 1. | 25 | 39 | 19 | 39 | 66 |
| 2. | 19 | 74 | 89 | 59 | 79 |
| 3. | 30 | 91 | 81 | 40 | 41 |
| 4. | 43 | 65 | 94 | 81 | 33 |
| 5. | 31 | 72 | 10 | 53 | 32 |
| 6. | 66 | 84 | 9 | 55 | 19 |
| 7. | 69 | 59 | 62 | 82 | 99 |
| 8. | 49 | 93 | 80 | 75 | 65 |
| 9. | 302 | 692 | 209 | 457 | 389 |
| 10. | 889 | 479 | 283 | 462 | 589 |

Page 80

- 11a. $700 + 30 + 2$
 11b. $30,000 + 2,000 + 100 + 30 + 2$
 11c. $4,000 + 700 + 90$
 12a. $1,000 + 3$
 12b. $2,000,000 + 300,000 + 10,000 + 4,000 + 700 + 30 + 2$
 12c. $3,000 + 1$

13.

| | | |
|--------|---------|-----------|
| a | b | c |
| 13,600 | 80,000 | 2,000,000 |
| 4,940 | 400,000 | 4,020 |

 14.
 15a. $13,702 > 13,207$ 15b. $3,976 < 9362$
 15c. $932 > \text{nine hundred-one}$
 16a. $26,314 < 260,314$ 16b. $978 = 978$
 16c. $3,721,460 > 3,710,460$

| | a | b | c | d | e |
|-----|-------|-------|-------|-------|-------|
| 17. | 875 | 783 | 1,088 | 941 | 779 |
| 18. | 3,032 | 2,350 | 4,606 | 9,115 | 9,810 |

Page 81

| | a | b | c | d | e |
|-----|--------|--------|--------|---------|--------|
| 19. | 29,014 | 53,010 | 31,009 | 54,002 | 19,147 |
| 20. | 8,411 | 24,810 | 4,095 | 28,999 | 16,949 |
| 21. | 5,150 | 39,947 | 10,990 | 39,559 | 4,970 |
| 22. | 91,710 | 4,464 | 49,930 | 8,378 | 79,967 |
| 23. | 9,000 | 29,000 | 5,400 | 111,000 | 90,000 |
| 24. | 31,000 | 1,000 | 39,100 | 10,000 | 9,000 |

Page 82

| | a | b | c | d | e |
|-----|-----|-----|-----|-----|-----|
| 25. | 56 | 36 | 28 | 48 | 84 |
| 26. | 96 | 28 | 88 | 48 | 80 |
| 27. | 224 | 141 | 168 | 360 | 153 |
| 28. | 336 | 576 | 336 | 175 | 441 |

Grade 4 Answers

| | a | b | c | d | e | f |
|-----|--------|--------|-------|--------|--------|--------|
| 29. | 110 | 242 | 992 | 860 | 500 | 620 |
| 30. | 1,875 | 576 | 5,412 | 2,997 | 1,751 | 10,716 |
| 31. | 18,810 | 16,000 | 9,353 | 13,294 | 46,124 | 7,581 |

Page 83

| | a | b | c | d | e |
|-----|-------|-------|-----|-------|-------|
| 32. | 9 | 8 | 6 | 8 | 6 |
| 33. | 3 | 7 | 4 | 9 | 8 |
| 34. | 110 | 321 | 103 | 121 | 108 |
| 35. | 90r4 | 91r2 | 105 | 41r1 | 438 |
| 36. | 50r8 | 115r2 | 114 | 316r1 | 178r1 |
| 37. | 100r8 | 255 | 162 | 111 | 74r1 |

Page 84

| | | | | | |
|-----|-----|-------|--------|-------|-------|
| 38. | 36 | 39.60 | 40.210 | 41.18 | 42.80 |
| 43. | 400 | | | | |

Chapter 7

Pretest, page 85

| | a | b | c | d |
|----|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| 1. | $\frac{3}{8}$ | $\frac{1}{4}$ | $\frac{1}{4}$ | |
| 2. | $\frac{2}{5}$ | $\frac{3}{6}$ | $\frac{1}{6}$ | |
| 3. | $\frac{3}{4} > \frac{1}{4}$ | $\frac{1}{2} = \frac{2}{4}$ | $\frac{7}{8} > \frac{2}{8}$ | $\frac{2}{8} < \frac{4}{8}$ |
| 4. | $\frac{2}{2}$ | $\frac{5}{5}$ | $\frac{2}{4}$ | $\frac{3}{6}$ |
| 5. | $\frac{6}{6}$ | $\frac{1}{1}$ | $\frac{10}{10}$ | $\frac{2}{2}$ |
| 6. | 0.51 | 0.86 | 0.723 | \$7.75 |
| 7. | 0.44 | 0.31 | \$8.06 | \$75.13 |

Pretest, page 86

| | | | | | |
|-----|---------------|------------------|-------------------|---------|-------------|
| 8. | $\frac{2}{4}$ | 9. $\frac{2}{8}$ | 10. $\frac{5}{8}$ | 11. 50¢ | 12. \$31.96 |
| 13. | \$1.07 | | | | |

Lesson 7.1, page 87

| | a | b | c |
|----|----------------|----------------|---------------|
| 1. | $\frac{1}{3}$ | $\frac{2}{4}$ | $\frac{5}{8}$ |
| 2. | $\frac{5}{10}$ | $\frac{4}{10}$ | $\frac{1}{2}$ |
| 3. | $\frac{2}{4}$ | $\frac{1}{2}$ | $\frac{1}{3}$ |

Lesson 7.2, page 88

| | a | b | c |
|----|----------------|---------------|---------------|
| 1. | $\frac{3}{10}$ | $\frac{2}{5}$ | $\frac{3}{6}$ |
| 2. | $\frac{1}{4}$ | $\frac{1}{2}$ | $\frac{4}{8}$ |
| 3. | $\frac{1}{3}$ | $\frac{2}{3}$ | $\frac{2}{5}$ |

Lesson 7.3, page 89

| | a | b | c | d |
|----|-------------------------------|-------------------------------|-----------------------------|---------------------------------|
| 1. | $\frac{3}{12} > \frac{2}{12}$ | $\frac{3}{4} > \frac{1}{4}$ | $\frac{5}{8} < \frac{6}{8}$ | $\frac{1}{2} = \frac{1}{2}$ |
| 2. | $\frac{2}{3} > \frac{1}{3}$ | $\frac{2}{10} < \frac{4}{10}$ | $\frac{5}{8} > \frac{3}{8}$ | $\frac{11}{12} > \frac{10}{12}$ |

| | | | | |
|----|-------------------------------|-------------------------------|-------------------------------|-----------------------------|
| 3. | $\frac{4}{5} > \frac{4}{5}$ | $\frac{7}{12} < \frac{8}{12}$ | $\frac{6}{10} > \frac{5}{10}$ | $\frac{3}{4} > \frac{2}{4}$ |
| 4. | $\frac{8}{12} > \frac{6}{12}$ | $\frac{4}{5} > \frac{4}{5}$ | $\frac{2}{4} > \frac{1}{4}$ | $\frac{5}{8} < \frac{7}{8}$ |

Lesson 7.4, page 90

| | a | b | c | d |
|----|-----------------|-----------------|-----------------|----------------|
| 1. | $\frac{9}{12}$ | $\frac{4}{16}$ | $\frac{10}{15}$ | $\frac{2}{4}$ |
| 2. | $\frac{6}{18}$ | $\frac{6}{24}$ | $\frac{3}{15}$ | $\frac{8}{40}$ |
| 3. | $\frac{10}{14}$ | $\frac{12}{24}$ | $\frac{8}{32}$ | $\frac{6}{36}$ |
| 4. | $\frac{9}{27}$ | $\frac{20}{30}$ | $\frac{0}{25}$ | $\frac{2}{16}$ |
| 5. | 15 | 2 | 12 | 18 |
| 6. | 4 | 16 | 24 | 6 |
| 7. | 40 | 15 | 21 | 10 |
| 8. | 8 | 20 | 27 | 9 |

Lesson 7.4, page 91

| | a | b | c | d |
|----|----------------|---------------|---------------|----------------|
| 1. | $\frac{1}{5}$ | $\frac{4}{8}$ | $\frac{1}{3}$ | $\frac{1}{5}$ |
| 2. | $\frac{1}{6}$ | $\frac{4}{5}$ | $\frac{1}{5}$ | $\frac{4}{10}$ |
| 3. | $\frac{3}{15}$ | $\frac{7}{8}$ | $\frac{1}{3}$ | $\frac{9}{9}$ |
| 4. | $\frac{2}{5}$ | $\frac{5}{6}$ | $\frac{1}{2}$ | $\frac{2}{3}$ |
| 5. | 8 | 3 | 1 | 1 |
| 6. | 9 | 2 | 5 | 4 |
| 7. | 2 | 2 | 1 | 12 |
| 8. | 7 | 5 | 8 | 1 |

Lesson 7.5, page 92

| | a | b | c | d | e |
|----|-----------------|----------------|----------------|---------------|-----------------|
| 1. | $\frac{11}{12}$ | $\frac{3}{5}$ | $\frac{5}{6}$ | $\frac{3}{4}$ | |
| 2. | $\frac{4}{10}$ | $\frac{5}{8}$ | $\frac{2}{3}$ | $\frac{4}{7}$ | |
| 3. | $\frac{4}{5}$ | $\frac{9}{12}$ | $\frac{9}{10}$ | $\frac{4}{5}$ | |
| 4. | $\frac{5}{8}$ | $\frac{7}{12}$ | $\frac{2}{6}$ | $\frac{3}{6}$ | $\frac{1}{8}$ |
| 5. | $\frac{8}{12}$ | $\frac{7}{7}$ | $\frac{9}{10}$ | $\frac{4}{5}$ | $\frac{11}{12}$ |
| 6. | $\frac{8}{11}$ | $\frac{2}{4}$ | $\frac{2}{2}$ | $\frac{6}{7}$ | $\frac{1}{9}$ |

Lesson 7.6, page 93

| | a | b | c | d | e |
|----|----------------|----------------|----------------|----------------|---------------|
| 1. | $\frac{8}{12}$ | $\frac{4}{10}$ | $\frac{2}{4}$ | $\frac{1}{7}$ | $\frac{3}{5}$ |
| 2. | $\frac{2}{10}$ | $\frac{1}{12}$ | $\frac{2}{5}$ | $\frac{3}{10}$ | $\frac{4}{8}$ |
| 3. | $\frac{6}{10}$ | $\frac{2}{11}$ | $\frac{7}{2}$ | $\frac{2}{5}$ | $\frac{2}{2}$ |
| 4. | $\frac{2}{7}$ | $\frac{4}{12}$ | $\frac{1}{9}$ | $\frac{4}{12}$ | |
| 5. | $\frac{2}{12}$ | $\frac{1}{4}$ | $\frac{2}{10}$ | $\frac{2}{3}$ | |
| 6. | $\frac{4}{8}$ | $\frac{1}{7}$ | $\frac{3}{2}$ | $\frac{7}{10}$ | |

Lesson 7.7, page 94

| | | | | | | |
|----|---------------|------------------|------------------|------------------|------------------|------------------|
| 1. | $\frac{2}{3}$ | 2. $\frac{1}{4}$ | 3. $\frac{4}{5}$ | 4. $\frac{6}{8}$ | 5. $\frac{5}{7}$ | 6. $\frac{5}{6}$ |
|----|---------------|------------------|------------------|------------------|------------------|------------------|

Grade 4 Answers

Lesson 7.8, page 95

| | a | b | c | |
|----|------------|-------------|-------------|---|
| 1. | hundredths | thousands | tenths | |
| 2. | tens | thousandths | tenths | |
| 3. | ones | hundredths | thousandths | |
| | a | b | c | d |
| 4. | 4 | 1 | 5 | 2 |
| 5. | 4 | 3 | 0 | 1 |
| 6. | 3 | 2 | 5 | 1 |

Lesson 7.8, page 96

| | a | b | c | |
|----|-----------------------|-----------------------|-----------------------|-------|
| 1. | 0.3 or $\frac{3}{10}$ | 0.7 or $\frac{7}{10}$ | 0.2 or $\frac{2}{10}$ | |
| | a | b | c | d |
| 2. | 0.2 | 0.6 | 0.9 | 0.4 |
| 3. | 0.03 | 0.004 | 0.08 | 0.005 |
| | a | b | c | |
| 4. | $1.31 > 1.30$ | $0.01 < 1.1$ | $0.008 < 0.009$ | |
| 5. | $1.32 < 1.42$ | $1.3 > 1.03$ | $0.66 < 0.67$ | |

Lesson 7.9, page 97

| | a | b | c | d | e |
|----|--------|--------|--------|--------|--------|
| 1. | 1.00 | 2.4 | 2.7 | 9.8 | 10.9 |
| 2. | 10.2 | 8.6 | 18.67 | 23.12 | 15.15 |
| 3. | 1.43 | 100.51 | 46.70 | 45.77 | 183.66 |
| 4. | 500.62 | 111.00 | 562.15 | 113.35 | 200.90 |
| 5. | 0.46 | 1.80 | 42.35 | 72.30 | |
| 6. | 151.35 | 466.60 | 34.56 | 42.830 | |

Lesson 7.10, page 98

| | a | b | c | d | e |
|----|--------|--------|--------|--------|-------|
| 1. | 71.1 | 30.2 | 0.15 | 0.12 | 2.7 |
| 2. | 235.11 | 85.99 | 1.187 | 53.326 | 93.10 |
| 3. | 21.91 | 32.169 | 2.809 | 80.95 | 0.019 |
| 4. | 7.312 | 28.602 | 1.199 | 0.893 | 1.80 |
| 5. | 2.794 | 18.198 | 2.65 | 2.596 | 5.300 |
| 6. | 2.206 | 2.195 | 33.656 | 56.80 | 40.81 |

Lesson 7.11, page 99

| | a | b | c | d | e |
|----|----------|---------|-----------|-----------|-----------|
| 1. | \$20.41 | \$2.60 | 97¢ | 56¢ | \$11.80 |
| 2. | 87¢ | \$18.20 | \$2192.63 | \$6.03 | \$1.30 |
| 3. | \$610.05 | \$97.64 | \$900.32 | \$6348.13 | \$198.60 |
| 4. | \$599.23 | 55¢ | \$95.80 | \$2553.03 | 33¢ |
| 5. | \$89.01 | \$11.09 | \$23.07 | 16¢ | \$1133.95 |
| 6. | \$136.78 | 87¢ | \$9.61 | \$560.90 | \$265.60 |

Lesson 7.11, page 100

| | | | | | | | |
|----|----------|----|----------|----|--------|----|-----|
| 1. | \$7.60 | 2. | \$580.15 | 3. | \$1.20 | 4. | 90¢ |
| 5. | \$132.15 | 6. | \$4.75 | | | | |

Posttest, page 101

| | a | b | c | d | e |
|-----|-----------------|----------------|--------------------------------|---------------|----------------------|
| 1. | $\frac{10}{10}$ | $\frac{8}{12}$ | $\frac{7}{10}$ | $\frac{2}{4}$ | $\frac{6}{8}$ |
| 2. | 0.60 | 51.83 | 15.324 | \$59.10 | 74¢ |
| 3. | 1.4728 | \$2,027.56 | 0.013 | 1.10 | \$80.74 |
| 4. | 20.070 | \$1,298.70 | \$1.64 | 10.110 | 128.63 |
| 5. | 247.09 | \$55.80 | 0.004 | 0.085 | \$327.51 |
| 6. | $\frac{3}{12}$ | $\frac{3}{9}$ | $\frac{2}{10}$ | $\frac{1}{4}$ | $\frac{3}{8}$ |
| 7a. | $0.32 > 0.23$ | 7b. | $\frac{11}{12} > \frac{3}{12}$ | 7c. | $0.4 = \frac{4}{10}$ |
| 7d. | $0.015 < 0.105$ | | | | |

Posttest, page 102

| | | | | | | | |
|-----|----------------|-----|-----------------|-----|---------|-----|---------|
| 8. | 26.38 | 9. | $\frac{11}{12}$ | 10. | \$34.25 | 11. | \$31.05 |
| 12. | $\frac{8}{12}$ | 13. | \$0.10 | | | | |

Chapter 8

Pretest, page 103

| | | | | | | | |
|-----|--------------------|-----|------------|-----|--------------------|-----|----------|
| 1a. | 1 yd. | 1b. | 2 gal. | 2a. | 8 oz. | 2b. | 1760 yd. |
| 3a. | 24 in. | 3b. | 5 pt. | 4a. | 1 yd. | 4b. | 4 qt |
| 5a. | 20 c | 5b. | 2 qt. | 6a. | $1\frac{1}{2}$ in. | 6b. | 3 in. |
| 7a. | $2\frac{1}{2}$ in. | 7b. | 1 in. | 8a. | 70 in. | 8b. | 68 ft. |
| 9a. | 300 sq. yd. | 9b. | 72 sq. in. | | | | |

Pretest, page 104

| | | | | | | | |
|-----|------------|-----|-------|-----|-----------|-----|--------|
| 10. | 12 | 11. | 6 ft. | 12. | 1,000 lb. | 13. | 25 yd. |
| 14. | 80 sq. ft. | | | | | | |

Lesson 8.1, page 105

1. 3 in. 2. $2\frac{1}{2}$ in. 3. $\frac{1}{2}$ in.
4.-9. Lines should be the length specified.

Lesson 8.2, page 106

1. $2\frac{1}{4}$ in. 2. $\frac{3}{4}$ in. 3. $1\frac{1}{4}$ in. 4. $3\frac{1}{8}$ in. 5. $1\frac{1}{8}$ in.
6.-9. Lines should be the length specified.

Lesson 8.3, page 107

| | a | b | c |
|-----|------------|-----------|-----------|
| 1. | 15 ft. | 96 in. | 216 ft. |
| 2. | 4 ft. | 5,280 yd. | 864 in. |
| 3. | 1,000 yd. | 2 ft. | 10,560 ft |
| 4. | 1 ft. | 936 in. | 4 yd. |
| 5. | 10 yd. | 120 in. | 2160 ft |
| 6. | 12,320 yd. | 200 ft. | 108 yd. |
| 7. | 52,800 ft | 50 ft | 72 in. |
| 8. | 11 ft. | 1,800 in. | 3 ft |
| 9. | 24 yd. | 1 yd. | 303 ft. |
| 10. | 14,080 yd. | 16 yd. | 10 ft. |

Lesson 8.3, page 108

1. 60 in. 2. 3 yd. 3. 75 ft. 4. 12 yd
5. 7,040 yd. 6. $780 \div 3 = 260$ yd
7. $10,000 \div 5,000 = 2$ mi.



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Grade 4 Answers






Lesson 12.5, page 157

1. 2; 135 2. 190; 5 3. 25; 25
4. 1245; 130 5. 20; 15 6. 25; 32

Lesson 12.5, page 158

1. $63 \times 7 = 441$ 2. $182 \times 2 = 364$
3. $58 \div 29 = 2$
4. $\$12.32 \times 5 = \61.60
5. $\$17.50 + \$18.50 + \$12.50 = \48.50

Posttest, page 159

- | a | b |
|--|--|
| 1. 24, 23 | 256, 259 |
| 2. 33, 22 | 488, 441, 416 |
| 3. 82, 104 | 21, 33 |
| 4.  |  |
| 5.    | |

Posttest, page 160

6. 3; 75 7. 5; 6 8. 6; 20
9. $\$2.45 - \$1.13 = \$1.32$
10. $15 + 25 + 2 = 42$

Final Test

Page 161

- | a | b | c | d | e |
|-----------|--------|--------|--------|--------|
| 1. 36 | 1,964 | 790 | 285 | 1,054 |
| 2. 4,330 | 980 | 12,750 | 1,055 | 3,659 |
| 3. 31,168 | 11,122 | 27,760 | 21,688 | 67,123 |
| 4. 91 | 79 | 48 | 39 | 53 |
| 5. 527 | 5,269 | 1,532 | 2,136 | 455 |
| 6. 429 | 1,281 | 754 | 2,007 | 818 |

Page 162

- | a | b | c | d | e |
|-------------|--------|---------|---------|---------|
| 7. 702 | 448 | 873 | 384 | 225 |
| 8. 9,604 | 1,170 | 1,728 | 4,158 | 2,241 |
| 9. 25,272 | 7,002 | 10,320 | 7,904 | 39,702 |
| 10. 295,470 | 84,126 | 270,096 | 142,344 | 122,500 |
| 11. 15 | 8 | 16r2 | 18r4 | 17 |
| 12. 82r1 | 291 | 125 | 197r2 | 100 |
| 13. 371r1 | 2641 | 938r3 | 2409r1 | 503 |
| 14. 1638r4 | 625 | 1400r4 | 730r1 | 1,230 |

Page 163

15. tenths; ten thousands
16. thousandths; hundreds
17. 103,500; 2,000,000
18. 23,000; 580
19. $14.05 < 14.95$; $12700 < 12,703$;
 $164,000 > 146,000$

20. $17.05 = 17.05$; $0.008 < 0.010$;
 $0.010 < 0.100$

- | | a | b | c | d | e |
|-----|---------------|-----------------|---------------|----------------|-------|
| 21. | 1,000 | 220,000 | 3,880 | 64,000 | 9,000 |
| 22. | $\frac{6}{6}$ | $\frac{10}{12}$ | $\frac{2}{8}$ | $\frac{4}{12}$ | |
| 23. | 1 | 4 | 25 | 56 | |

Page 164

- | | a | b | c | d |
|-----|---|----------|-----------|-------|
| 24. | \$19.64 | 0.051 | 50¢ | 7.722 |
| 25. | 1 yd. | 70 mm | 10000 lb. | |
| 26. | 6 pt. | 72,000 g | 44 yd. | |
| 27. | 20,000 mm | 14,000 m | 22,000 mL | |
| 28. | 11 ft. | 40 in. | 44 m | |
| 29. | 150 sq. ft.; 176 sq. cm; 300 sq. in.; 2050 sq. cm | | | |
| 30. | cupcakes; 15 | | | |

Page 165

31. $\frac{3}{8} ; \frac{0}{8}$
32a. cube
32b. rectangle
32c. cylinder
32d. pentagon
32e. triangle
33a. line segment
33b. ray
33c. right angle
33d. obtuse angle
33e. acute angle

- | | a | b | c |
|-----|--------------|---------------|----------|
| 34. | intersecting | perpendicular | parallel |
| 35. | 54 | 97, 112 | |
| 36. | 1,095 | 0, 50, 125 | |

Page 166

37. A (5, 4); B (9, 1); C (0, 0); D (5, 0); E (0, 8)

- | | a | b |
|-----|--------------------------|----|
| 38. | 21 | 22 |
| 39. | 5 | 10 |
| 40. | 30 | 3 |
| 41. | $1760 \times 10 = 17600$ | |
| 42. | $28 \times 3 = 84$ | |